BELLSOUTH

Gregg F. Morton
Vice President - Regulatory and Legislative Affairs

Suite 807
1600 Hampton Street
Columbia, South Carolina 29201
803 733-6300
FAX 803 771-4680

March 16, 1999

The Honorable Gary E. Walsh
Executive Director
Public Service Commission of SC
Post Office Drawer 11649
Columbia, South Carolina 29211

Re: Approval of Interconnection Agreement Negotiated by BellSouth Telecommunications, Inc. and Knology Holdings (adopting MCIm/SC), Inc. pursuant to Sections 251, 252 and 271 of the Telecommunications Act of 1996

Dear Mr. Walsh:

Pursuant to Section 252(e) of the Telecommunications Act of 1996, BellSouth Telecommunications, Inc. ("BellSouth") and Knology Holdings (adopting MCIm/SC), Inc. are submitting to the South Carolina Public Service Commission their negotiated agreement for the interconnection of their networks, the unbundling of specific network elements, and the resale of BellSouth's telecommunications services to Knology Holdings (adopting MCIm/SC), Inc. The agreement was negotiated pursuant to Sections 251, 252 and 271 of the Act.

Pursuant to Section 252(e) of the Act, the Commission is charged with approving or rejecting the negotiated agreement between BellSouth and Knology Holdings (adopting MCIm/SC), Inc. within 90 days of its submission. The Commission may only reject such an agreement if it finds that the agreement or any portion of the agreement discriminates against a telecommunications carrier not a party to the agreement or the implementation of the agreement or any portion of the agreement is not consistent with the public interest, convenience and necessity. Both parties represent that neither of these reasons exist as to the agreement they have negotiated and, therefore, are very hopeful that the Commission shall approve their agreement.

Very truly yours,

Gregg F. Morton

Cert'd 98-076-C

GFM/nml
Enclosures

1999-143-C

INTERCONNECTION AGREEMENT

This Agreement, which shall become effective as of the 19th day of MARCH, 1999, is entered into by and between Knology Holdings, Inc., a Delaware corporation, together with its affiliate(s) signatory hereto, (collectively "Knology-South Carolina"), on behalf of itself and its successors and assigns, having an office at 1241 O.G. Skinner Drive, West Point, Georgia, and BellSouth Telecommunications, Inc., ("BellSouth"), a Georgia corporation, having an office at 675 W. Peachtree Street, Atlanta, Georgia, 30375, on behalf of itself and its successors and assigns.

WHEREAS, the Telecommunications Act of 1996 (the "Act") was signed into law on February 8, 1996; and

WHEREAS, section 252(i) of the Act and as required by the FCC rules and regulations requires BellSouth to make available any interconnection, service, or network element provided under an agreement approved by the appropriate state regulatory body to any other requesting telecommunications carrier upon the same terms and conditions as those provided in the agreement; and

WHEREAS, Knology – South Carolina has requested that BellSouth make available the interconnection agreement in its entirety executed between BellSouth and MCImetro Access Transmission Services, Inc. dated September 18, 1997, for the state of South Carolina ("MCIm Interconnection Agreement – South Carolina");

NOW, THEREFORE, in consideration of the promises and mutual covenants of this Agreement and for other good and valuable consideration, the sufficiency of which is hereby acknowledged, Knology – South Carolina and BellSouth hereby agree as follows:

1. Knology – South Carolina and BellSouth shall adopt in its entirety the MCIm Interconnection Agreement dated September 18, 1997 and any and all amendments to said agreement executed and approved by the appropriate state regulatory commission as of the date of the execution of this Agreement. The MCIm Interconnection Agreement and all amendments are attached hereto as Exhibit 1 and incorporated herein by this reference.

2. The term of this Agreement shall be from the effective date as set forth above and shall expire as set forth in section 3 of the MCIm Interconnection Agreement.

3. BellSouth and Knology – South Carolina shall accept and incorporate into this Agreement any amendments to the MCIm Interconnection Agreement executed by the parties thereto as a result of any final judicial, regulatory, or legislative action.

4. Every notice, consent, approval, or other communications required or contemplated by this Agreement shall be in writing and shall be delivered in person or given by postage prepaid mail, address to:

BellSouth Telecommunications, Inc.

CLEC Account Team
9th Floor
600 North 19th Street
Birmingham, Alabama 35203

and

General Attorney - COU
Suite 4300
675 W. Peachtree St.
Atlanta, GA 30375

Knology Holdings, Inc.
Chad Wachter, Esq
Vice President and General Counsel
Knology Holdings, Inc.
1241 O.G. Skinner Drive
West Point, Georgia 31833

and

Walt Sapronov, Esq.
Gerry, Friend & Sapronov, LLP
Three Ravinia Drive, Suite 1450
Atlanta, Georgia 30346-2131

or at such other address as the intended recipient previously shall have designated by written notice to the other Party. Where specifically required, notices shall be by certified or registered mail. Unless otherwise provided in this Agreement, notice by mail shall be effective on the date it is officially recorded as delivered by return receipt or equivalent, and in the absence of such record of delivery, it shall be presumed to have been delivered the fifth day, or next business day after the fifth day, after it was deposited in the mails.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed through their duly authorized representatives.

BellSouth Telecommunications, Inc.

Signature

Jerry D. Hendrix

Name

3/5/99

Date

Knology Holdings, Inc.

Signature

FELIX L. BOCCUCCI

Name

MARCH 3, 1999

Date

Knology of
South Carolina, Inc. ("Affiliate")

Signature

FELIX L. BOCCUCCI

Name

MARCH 3, 1999

Date

EXHIBIT "1"

MCI INTERCONNECTION AGREEMENT – SOUTH CAROLINA

ORIGINAL

AMENDMENT
TO
MCIm/BELLSOUTH INTERCONNECTION AGREEMENT
DATED SEPTEMBER 18, 1997

Pursuant to this Amendment to MCIm/BellSouth Interconnection Agreement(the "Amendment"), for the state of South Carolina, MCImetro Access Transmission Services, Inc ("MCIm") and BellSouth Telecommunications, Inc ("BellSouth"), hereinafter referred to collectively as the "Parties," hereby agree to amend the MCIm/BellSouth Interconnection Agreement dated August 8, 1997 ("Interconnection Agreement")

NOW THEREFORE, in consideration of the mutual provisions contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, MCIm and BellSouth hereby covenant and agree as follows:

1. Table 1 of Attachment 1 of the Interconnection Agreement is hereby deleted in its entirety and shall be replaced with Exhibit A of this Amendment.

2. All of the other provisions of the Interconnection Agreement shall remain unchanged and in full force and effect.

3. Either or both of the Parties is authorized to submit this Amendment to the South Carolina Public Service Commission for approval subject to Section 252(e) of the Federal Telecommunications Act of 1996.

IN WITNESS WHEREOF, the Parties hereto have caused this Amendment to be executed by their respective duly authorized representatives on the date indicated below.

MCImetro Access Transmission Services, Inc.

By: _____

Name: Marcel Henry
Title: Regional Vice President

Date: December 23, 1997

BellSouth Telecommunications, Inc.

By: _____

Name: Jerry D. Hendrix
Title: Director-Interconnection Services-Pricing

Date: 12/27/97

UNBUNDLED NETWORK ELEMENTS

(All rates are interim, subject to true-up based on prices developed pursuant to BellSouth Cost Study submissions)

Network Interface Device, Per Month	$0.59
Loop Combinations, including NID	
2 Wire Analog VG Loop, per mo.	$18.00
Non recurring	$51.20
4 Wire Analog VG Loop, per mo.	$28.80
Non recurring	$51.20
2 Wire ADSL/HDSL Loop, per mo.	$18.00
Non recurring	$51.20
4 Wire HDSL Loop, per mo.	$28.80
Non recurring	$51.20
2 Wire ISDN Digital Grade Loop, per mo.	$28.80
Non recurring	$51.20
4 Wire DS1 Digital Grade Loop	$77.39
NRC, First	$300.00
NRC, Add'l	$250.00
Loop Channelization System	
Per System, per month	$400.00
NRC	$525.00
Per Voice Interface, per month	$1.15
NRC	$8.00
Local Switching, Per Month (Note: Local Switching rates do not include vertical features inherent in the unbundled local switching element. These vertical features are considered retail services that will be available for resale (discount) rates in accordance with the Commission's arbitration decision.	
2 Wire	$1.99
NRC First	$3.50
NRC Add'l	$3.50
4 Wire	$2.28
NRC First	$3.50
NRC Add'l	$3.50
2 Wire ISDN	$11.73
NRC First	$50.00
NRC Add'l	$50.00
2 Wire DID	$12.08
NRC First	$50.00
NRC Add'l	$50.00
4 Wire ISDN	$270.36
NRC First	$75.00
NRC Add'l	$75.00
4 Wire DS1, with DID Capability	$130.23
NRC First	$60.00
NRC Add'l	$60.00
Hunting, Per Line, per month	$0.12
Hunting, Per Line, NRC	None
Local Switching, per MOU	
VG Per Minute of Use	$0.00221
Operator Systems	
Operator Call Handling, per MOU	$1.17
Call Completion Access Termination Charge, per Call Attempt	$0.08
Automated Call Handling	
BST LIDB	$0.15
Foreign LIDB	$0.15
Directory Assistance, per call	$0.25
DA Call Completion, per attemmpt	$0.25
Call Completion Access Termination Charge, per completed call	$0.08
Intercept, per query	$0.30
Busy Line Verification, per call	$0.90
Emergency Interrupt, per call	$0.97
Directory Assistance	

UNBUNDLED NETWORK ELEMENTS
(All rates are interim, subject to true-up based on prices developed pursuant to BellSouth Cost Study submissions)

DA Database Service	
Per Listing	$0.0350
Monthly	$150.00
Direct Access to DA Service	TBD
DA transport	
Switched local channel, DS1 level	$133.81
NRC, First	$866.97
NRC, Add'l	$486.83
Switched dedicated DS1 level	
per mile, per month	$23.50
facility termination, per month	$90.00
NRC	$100.49
DA Common Transport	
per DA Call	$0.0003000
per DA Call Mile	$0.0000400
Tandem Switching	
per DA Call	$0.0005500
DA Interconnection, per DA Access Service Call	$0.0002690
NRC, per trunk or signaling connection	
First	$915.00
Additional	$100.00
Unbundled Exchange Access IOC	
Voice Grade Analog IOC	
0-8 mi, per month, fixed	$16.89
per mile, per month	$0.0070
9-25 mi, per month, fixed	$16.89
per mile, per month	$0.0070
> 25 mi, per month, fixed	$18.26
per mile, per month	$0.07750
NRC	$10.00
Dedicated Transport	
DS1, facility termination	$59.75
DS1, per mile	$1.60
NRC	$100.49
DS3, facility termination	$600.00
DS3, per mile	$40.00
NRC	$67.19
Digital X-Connect	
DCS 3/3, 3/1, 1/0	TBD
Common Transport	
Facility Termination per MOU	$0.000360
Per mile, per MOU	$0.0000120
Tandem Switching	$0.0031720
CCS7 Signaling Transport Services	
56 kbps Links, per month	$155.00
CCS7 Port, per STP, per month	$355.00
CCS7 Port, per STP, NRC	$510.00
Signal Transfer Points	
Call Set-up message	$0.0000230
TCAP Message	$0.0000500
Signaling Usage Surrogate, per 56 kbps facility. When signaling usage measurement capability exists, CCS7 signaling usage will be billed on a per signaling message basis. When measurement capability does not exist, CCS7 signaling usage will be billed on a per 56 kbps basis.	$395.00 per month
Signal Contral Points	
LIDB, common transport, per query	$0.00030
Validation, per query	$0.03800
NRC, per point code established or changed	$91.00
Toll Free Data Base	

UNBUNDLED NETWORK ELEMENTS

(All rates are interim, subject to true-up based on prices developed pursuant to BellSouth Cost Study submissions)

	Per 800 call with 800 No. Del., per query	$0.001150	
	with optional complex features, per query	$0.001200	
	Per 800 call with POTS No. Del., per query	$0.001150	
	with optional complex features, per query	$0.001200	
	NRC Reservation charge, per 800 number reserved	First $5.00	Add'l $0.50
	NRC Establishment charge, per 800 number established with 800 or POTS Number Delivery	First $5.00	Add'l $1.50
	Change charge, per request	First $5.00	Add'l $0.50
	Customized area of service, per 800 number	First $3.00	Add'l $1.50
	Multiple interLATA carrier routing, per carrier requested, per 800 No.	First $3.50	Add'l $2.00
	Call handling and destination features, per 800 number	First $3.00	Add'l $3.00
	Calling Name (CNAM) Query Service, per query	$0.0160	
	AIN, per signaling message	$0.0006	
Call Transport and Termination (1)			
	End Office Switching, per MOU	$0.002210	
	Tandem Switching, per MOU	$0.003172	
	Common Transport, per MOU	$0.000360	
	Common Transport, per mile per MOU	$0.000012	
Dark Fiber			
	Per each four-fiber dry fiber arrangement		
	NRC - First	$1,000.00	
	NRC - Additional	$1,000.00	
	Per each fiber strand, per foot, per month	$0.0456	
Selective Routing			
	Per line or PBX trunk, one-time charge	$5.00	

(1) BellSouth and MCIm agree that BellSouth will charge MCIm the rate of $0.002 as the composite rate for all elements of interconnection specified herein. This rate shall apply from April 9, 1997 through January 31, 1998 and shall not be subject to true up.

MCImetro/BellSouth INTERCONNECTION AGREEMENT

This Interconnection Agreement (the "Agreement"), effective [insert date], 199__ (the "Effective Date"), is entered into by and between BellSouth Telecommunications, Inc. ("BellSouth"), a Georgia corporation, and MCImetro Access Transmission Services, Inc. ("MCIm"), a Delaware corporation, to establish the rates, terms and conditions for interconnection, local resale, ancillary services and purchase of unbundled network elements (individually referred to as the "service" or collectively as the "services").

WHEREAS, the parties wish to interconnect their local exchange networks in a technically and economically efficient manner for the transmission and termination of calls ("Interconnection"); and

WHEREAS, MCIm wishes to purchase Telecommunications Services for resale to others ("Local Resale" or "Services for Resale"), and BellSouth is willing to provide such service pursuant to the terms and conditions of this Agreement; and

WHEREAS, MCIm wishes to purchase on an unbundled basis Network Elements, and BellSouth is willing to provide such services; and

WHEREAS, MCIm wishes to purchase ancillary services such as access to poles, ducts conduits and rights of way and collocation of equipment at BellSouth's facilities on the terms and subject to the conditions of this Agreement; and

WHEREAS, the parties intend the rates, terms and conditions of this Agreement, and their performance of obligations thereunder, to comply with the Communications Act of 1934, as amended by the Telecommunications Act of 1996 (the "Act"), the applicable Rules and Regulations of the Federal Communications Commission ("FCC") in effect, and the orders, rules and regulations of the state regulatory body.

Now, therefore, in consideration of the terms and conditions contained herein, BellSouth and MCIm hereby mutually agree as follows:

PART A
GENERAL TERMS AND CONDITIONS

Section 1. Scope of this Agreement

1.1 This Agreement, including Parts A, B, and C, specifies the rights and obligations of each party with respect to the purchase and sale of Interconnection, Local Resale, Network Elements and ancillary services. This PART A sets forth the general terms and conditions governing this Agreement. Certain terms used in this Agreement shall have the meanings defined in PART B -- DEFINITIONS, or as otherwise elsewhere defined throughout this Agreement. Other terms used but not defined herein will have the meanings ascribed to them in the Act and the applicable FCC Rules and Regulations in effect. PART C sets forth, among other things, descriptions of the services, pricing, technical and business requirements, and physical and network security requirements.

LIST OF ATTACHMENTS COMPRISING PART C:

I. Price Schedule
II. Local Resale
III. Network Elements
IV. Interconnection
V. Collocation
VI. Rights of Way
VII. Number Portability
VIII. Business Process Requirements
IX. Security Requirements
X. Credits for Performance Standards Failures

1.2 BellSouth shall provide the services pursuant to this Agreement. Except as provided below, BellSouth shall not discontinue or refuse to provide any service provided or required hereunder without MCIm's prior written agreement. Such agreement shall not be unreasonably withheld. BellSouth shall not discontinue any telecommunications service available for resale unless BellSouth provides MCIm prior written notice of its intent to discontinue any such service. BellSouth agrees to make any such service available to MCIm for resale to MCIm customers who are subscribers to such services from MCIm until the date BellSouth discontinues any such service for BellSouth's customers. BellSouth also agrees to adopt a reasonable, nondiscriminatory transition schedule for BellSouth and MCIm customers who may be purchasing any such service.

1.2.1 Left Blank Intentionally

1.2.2 Left Blank Intentionally

Section 2. Regulatory Approvals

2.1 This Agreement, and any amendment or modification hereof, will be submitted to the state regulatory body for approval in accordance with Section 252 of the Act. Should the state regulatory body deny approval of the Agreement or any part thereof, the parties agree to consider whether any additional and appropriate judicial or administrative efforts are necessary to gain approval of said part or Agreement. If it is mutually determined that the part or Agreement must be renegotiated to gain approval by the state regulatory body, the parties agree to do so on an expedited basis. If the parties fail to reach agreement, either party may seek resolution pursuant to Section 23 (Dispute Resolution Procedures) of this Agreement.

2.2 In the event the FCC or the State regulatory body promulgates rules or regulations, or issues orders, or a court with appropriate jurisdiction issues orders, which make unlawful any provision of this Agreement, the parties shall negotiate promptly and in good faith in order to amend the Agreement to substitute contract provisions which are consistent with such rules, regulations or orders. In the event the parties cannot agree on an amendment within thirty (30) days from the date any such rules, regulations or orders become effective, then the parties shall resolve their dispute under the applicable procedures set forth in Section 23 (Dispute Resolution Procedures) hereof.

2.3 In the event BellSouth is required by any governmental authority to file a tariff or make another similar filing ("Filing") in order to implement this Agreement, BellSouth shall (i) consult with MCIm reasonably in advance of such Filing about the form and substance of such Filing, (ii) provide to MCIm its proposed tariff and obtain MCIm's agreement on the form and substance of such Filing, and (iii) take all steps reasonably necessary to ensure that such Filing imposes obligations upon BellSouth that are no less favorable than those provided in this Agreement and preserves for MCIm the full benefit of the rights otherwise provided in this Agreement. In no event shall BellSouth file any tariff to implement this Agreement that purports to govern the services provided hereunder that is inconsistent with the rates and other terms and conditions set forth in this Agreement unless such rate or other terms and conditions are more favorable than those set forth in this Agreement.

2.4 In the event that any final and nonappealable legislative, regulatory, judicial or other legal action materially affects any material terms of this Agreement, or the ability of MCIm or BellSouth to perform any material terms of this Agreement, or in the event a judicial or administrative stay of such action is not sought or granted, MCIm or BellSouth may, on thirty (30) days written notice (delivered not later than thirty (30) days following the date on which such action has become legally binding and has otherwise become final and nonappealable) require that such terms be renegotiated, and the Parties shall renegotiate in good faith such mutually acceptable new terms as may be required. In the event that such new terms are not renegotiated within ninety (90) days after such notice, the dispute shall be resolved in accordance with Section 23 (Dispute Resolution Procedures) of this Agreement.

2.5 The parties intend that any additional services requested by either party relating to the subject matter of this Agreement will be incorporated into this Agreement by amendment.

Section 3. Term of Agreement

This Agreement shall become binding upon execution by the parties and continue for a period of 3 years, unless earlier terminated in accordance with Section 20 (Termination). No later than 180 days prior to the expiration of this Agreement, the parties agree to commence negotiations with regard to the terms, conditions and prices of a follow on agreement for the provision of services to be effective on or before the expiration date of this Agreement ("Follow-on Agreement"). The Parties further agree that any such Follow-on Agreement shall be for a term of no less than three years unless the Parties agree otherwise.

If, within 135 days of commencing the negotiation referenced above, the Parties are unable to satisfactorily negotiate new terms, conditions and prices, either Party may petition the State regulatory body to establish an appropriate Follow-on Agreement pursuant to 47 U.S.C. §252. The Parties agree that in such event they shall encourage the State regulatory body to issue its order regarding such Follow-on Agreement no later than the expiration date of this Agreement. The Parties further agree that in the event the State regulatory body does not issue its order by the expiration date of this Agreement or if the Parties continue beyond the expiration date of this Agreement to negotiate without State regulatory body intervention, the terms, conditions and prices ultimately ordered by the State regulatory body, or negotiated by the Parties, will be effective retroactive to the day following the expiration date of this Agreement. Until the Follow-on Agreement becomes effective, BellSouth shall provide Services

pursuant to the terms, conditions and prices of this Agreement that are then in effect.

Section 4. Charges and Payment

In consideration of the services provided by BellSouth under this Agreement, MCIm shall pay the charges set forth in Attachment I. The billing and payment procedures for charges incurred by MCIm hereunder are set forth in Attachment VIII.

Section 5. Assignment and Subcontract

5.1 Any assignment by either party to any non-affiliated entity of any right, obligation or duty, or of any other interest hereunder, in whole or in part, without the prior written consent of the other party shall be void. A party may assign this Agreement or any right, obligation, duty or other interest hereunder to an Affiliate company of the party without the consent of the other party. All obligations and duties of any party under this Agreement shall be binding on all successors in interest and assigns of such party. No assignment or delegation hereof shall relieve the assignor of its obligations under this Agreement in the event that the assignee fails to perform such obligations.

5.2 If any party's obligation under this Agreement is performed by a subcontractor or affiliate, the Party subcontracting the obligation nevertheless shall remain fully responsible for the performance of this Agreement in accordance with its terms, and shall be solely responsible for payments due its subcontractors or affiliates. No subcontractor or affiliate shall be deemed a third party beneficiary for any purposes under this Agreement.

Section 6. Compliance with Laws

All terms, conditions and operations under this Agreement shall be performed in accordance with all applicable laws, regulations and judicial or regulatory decisions of all duly constituted governmental authorities with appropriate jurisdiction, and this Agreement shall be implemented consistent with the applicable rules and regulations of the FCC and the state regulatory body in effect. Each party shall be responsible for obtaining and keeping in effect all FCC, state Commission, franchise authority and other regulatory approvals that may be required in connection with the performance of its obligations under this Agreement. In the event the basis for this Agreement (e.g., the Act, FCC Rules and Regulations, orders of the state regulatory body) is held to be invalid or changed for any reason, this Agreement shall survive, and the parties shall

promptly renegotiate any provisions of this Agreement, which in the absence of such invalidated or changed Act, Rule or Regulation are insufficiently clear to be effectuated.

Section 7. Governing Law

This Agreement shall be governed by and construed in accordance with applicable federal law and the laws of the state of South Carolina, without regard to its conflicts of laws principles.

Section 8. Relationship of Parties

Each party is an independent contractor, and has and hereby retains the right to exercise full control of and supervision over its own performance of its obligations under this Agreement and retains full control over the employment, direction, compensation and discharge of all employees assisting in the performance of such obligations.

Section 9. No Third Party Beneficiaries

The provisions of this Agreement are for the benefit of the parties hereto and not for any other person. This Agreement shall not provide any person not a party hereto with any remedy, claim, liability, reimbursement, claim of action, or other right in excess of those existing without reference hereto.

Section 10. Intellectual Property Rights and Indemnification

10.1 Any intellectual property which originates from or is developed by a party shall remain in the exclusive ownership of that party. Except for a limited license to use patents or copyrights to the extent necessary for the parties to use any facilities or equipment (including software) or to receive any service solely as provided under this Agreement, no license in patent, copyright, trademark or trade secret, or other proprietary or intellectual property right now or hereafter owned, controlled or licensable by a party, is granted to the other party or shall be implied or arise by estoppel. It is the responsibility of each party to ensure at no additional cost to the other party that it has obtained any necessary licenses in relation to intellectual property of third parties used in its network that may be required to enable the other party to use any facilities or equipment (including software), to receive any service, or to perform its respective obligations under this Agreement.

10.2 The party providing a service pursuant to this Agreement will defend the party receiving such service or data provided as a result of such

service against claims of infringement arising solely from the use by the receiving party of such service and will indemnify the receiving party for any damages awarded based solely on such claims in accordance with Section 11 of this Agreement.

10.3 In the event that use of any facilities or equipment (including software), becomes or, in reasonable judgment of the party who owns the affected network is likely to become, the subject of a claim, action, suit, or proceeding based on intellectual property infringement, then said party shall promptly and at its sole expense, but subject to the limitations of liability set forth below:

(i) modify or replace the applicable facilities or equipment (including software) while maintaining form and function, or (ii) obtain a license sufficient to allow such use to continue. In the event (i) or (ii) are commercially unreasonable, then said party may, (iii) terminate, upon reasonable notice, this contract with respect to use of, or services provided through use of, the affected facilities or equipment (including software), but solely to the extent required to avoid the infringement claim.

10.4 Neither party's obligations under this Section shall apply to the extent the infringement is caused by: (i) modification of the facilities or equipment (including software) by the indemnitee; (ii) use by the indemnitee of the facilities or equipment (including software) in combination with equipment or facilities (including software) not provided or authorized by the indemnitor provided the facilities or equipment (including software) would not be infringing if used alone; (iii) conformance to specifications of the indemnitee which would necessarily result in infringement; or (iv) continued use by the indemnitee of the affected facilities or equipment (including software) after being placed on notice to discontinue use as set forth herein.

10.5 The foregoing shall constitute the parties' sole and exclusive remedies and obligations with respect to a third party claim of intellectual property infringement arising out of the conduct of business under this Agreement.

Section 11. Limitation of Liability and Indemnification

11.1. Liability Cap.

11.1.1 With respect to any claim or suit, whether based in contract, tort or any other theory of legal liability, by MCIm any

MCIm customer or by any other person or entity, for damages associated with any of the services provided by BellSouth pursuant to or in connection with this Agreement, including but not limited to the installation, provision, preemption, termination, maintenance, repair or restoration of service, and subject to the provisions of the remainder of this Section, BellSouth's liability shall be limited to an amount equal to the proportionate charge for the service provided pursuant to this Agreement for the period during which the service was affected. Notwithstanding the foregoing, claims for damages by MCIm, any MCIm customer or any other person or entity resulting from the gross negligence or willful misconduct of BellSouth and claims for damages by MCIm resulting from the failure of BellSouth to honor in one or more material respects any one or more of the material provisions of this Agreement shall not be subject to such limitation of liability.

11.1.2 With respect to any claim or suit, whether based in contract, tort or any other theory of legal liability, by BellSouth, any BellSouth customer or by any other person or entity, for damages associated with any of the services provided by MCIm pursuant to or in connection with this Agreement, including but not limited to the installation, provision, preemption, termination, maintenance, repair or restoration of service, and subject to the provisions of the remainder of this Section, MCIm's liability shall be limited to an amount equal to the proportionate charge for the service provided pursuant to this Agreement for the period during which the service was affected. Notwithstanding the foregoing, claims for damages by BellSouth, any BellSouth customer or any other person or entity resulting from the gross negligence or willful misconduct of MCIm and claims for damages by BellSouth resulting from the failure of MCIm to honor in one or more material respects any one or more of the material provisions of this Agreement shall not be subject to such limitation of liability.

11.2 Neither party shall be liable for any act or omission of any other telecommunications company to the extent such other telecommunications company provides a portion of a service.

11.3 Neither party shall be liable for damages to the other party's terminal location, Interconnection Point or the other party's customers' premises resulting from the furnishing of a service, including but not limited to the installation and removal of equipment and associated wiring, except to the extent the damage is caused by such party's gross negligence or willful misconduct.

11.4 **No Consequential Damages** - Neither MCIm nor BellSouth shall be liable to the other party for any indirect, incidental, consequential, reliance, or special damages suffered by such other party (including without limitation damages for harm to business, lost revenues, lost savings, or lost profits suffered by such other parties), regardless of the form of action, whether in contract, warranty, strict liability, or tort, including without limitation negligence of any kind whether active or passive, and regardless of whether the parties knew of the possibility that such damages could result. Each party hereby releases the other party and such other party's subsidiaries and affiliates, and their respective officers, directors, employees and agents from any such claim. Nothing contained in this section 11 shall limit BellSouth's or MCIm's liability to the other for (i) willful or intentional misconduct (including gross negligence); (ii) bodily injury, death or damage to tangible real or tangible personal property proximately caused by BellSouth's or MCIm's negligent act or omission or that of their respective agents, subcontractors or employees, nor shall anything contained in this section 11 limit the parties' indemnification obligations as specified herein.

11.5 **Obligation to Indemnify** - Each Party shall, and hereby agrees to, defend at the other's request, indemnify and hold harmless the other Party and each of its officers, directors, employees and agents (each, an "Indemnitee") against and in respect of any loss, debt, liability, damage, obligation, claim, demand, judgment or settlement of any nature or kind, known or unknown, liquidated or unliquidated, including without limitation all reasonable costs and expenses incurred (legal, accounting or otherwise) (collectively, "Damages") arising out of, resulting from or based upon any pending or threatened claim, action, proceeding or suit by any third Party (a "Claim") (i) alleging any breach of any representation, warranty or covenant made by such indemnifying Party (the "Indemnifying Party") in this Agreement, (ii) based upon injuries or damage to any person or property or the environment arising out of or in connection with this Agreement that are the result of the Indemnifying Party's actions, breach of Applicable Law, or status of its employees, agents and subcontractors, or (iii) for actual or alleged infringement of any patent, copyright, trademark, service mark, trade name, trade dress, trade secret or any other intellectual property right, now known or later developed (referred to as "Intellectual Property Rights") to the extent that such claim or action arises from MCIm or MCIm's Customer's use of the Services and Elements provided under this Agreement.

11.6 **Obligation to Defend; Notice; Cooperation** - Whenever a Claim shall arise for indemnification under this Section 11, the relevant Indemnitee, as appropriate, shall promptly notify the Indemnifying Party

and request the Indemnifying Party to defend the same. Failure to so notify the Indemnifying Party shall not relieve the Indemnifying Party of any liability that the Indemnifying Party might have, except to the extent that such failure prejudices the Indemnifying Party's ability to defend such Claim. The Indemnifying Party shall have the right to defend against such liability or assertion in which event the Indemnifying Party shall give written notice to the Indemnitee of acceptance of the defense of such Claim and the identity of counsel selected by the Indemnifying Party. Except as set forth below, such notice to the relevant Indemnitee shall give the Indemnifying Party full authority to defend, adjust, compromise or settle such Claim with respect to which such notice shall have been given, except to the extent that any compromise or settlement shall prejudice the Intellectual Property Rights of the relevant Indemnitees. The Indemnifying Party shall consult with the relevant Indemnitee prior to any compromise or settlement that would affect the Intellectual Property Rights or other rights of any Indemnitee, and the relevant Indemnitee shall have the right to refuse such compromise or settlement and, at the refusing Party's or refusing Parties' cost, to take over such defense, provided that in such event the Indemnifying Party shall not be responsible for, nor shall it be obligated to indemnify the relevant Indemnitee against, any cost or liability in excess of such refused compromise or settlement. With respect to any defense accepted by the Indemnifying Party, the relevant Indemnitee shall be entitled to participate with the Indemnifying Party in such defense if the Claim requests equitable relief or other relief that could affect the rights of the Indemnitee and also shall be entitled to employ separate counsel for such defense at such Indemnitee's expense. In the event the Indemnifying Party does not accept the defense of any indemnified Claim as provided above, the relevant Indemnitee shall have the right to employ counsel for such defense at the expense of the Indemnifying Party. Each Party agrees to cooperate and to cause its employees and agents to cooperate with the other Party in the defense of any such Claim and the relevant records of each Party shall be available to the other Party with respect to any such defense.

11.7 Both parties agree that they, at their own cost and expense, shall maintain throughout the term of this Agreement, all insurance required by law, and may at their own cost and expense purchase insurance or self-insure their employer, public, professional and legal liabilities. No limit of liability on any policy, not program of self-insurance, nor any failure to maintain adequate insurance coverage shall limit the direct or indirect liability of either party.

Section 12. *Left blank intentionally*

Section 13. Continuing Obligations

13.1 Except as otherwise provided herein, each party shall perform its obligations hereunder at a performance level no less than the level which it uses for its own operations, or those of its Affiliates, but in no event shall a party use less than reasonable care in the performance of its duties hereunder.

13.1.1 In providing Services and Elements, BellSouth will provide MCIm with the quality of service BellSouth provides itself and its end-users. BellSouth's performance under this Agreement shall provide MCIm with the capability to meet standards or other measurements that are at least equal to the level that BellSouth provides or is required to provide by law and its own internal procedures. BellSouth shall satisfy all service standards, measurements, and performance requirements set forth in the Agreement and the measurements specified in Section 13.4.2.25 of Attachment III and in Sections 2.5, 3.4, 4.4 - 4.5, and 5.4 of Attachment VIII of this Agreement. Any conflict between the standards, measurements, and performance requirements BellSouth provides itself and the standards, measurements and performance requirements set foth in this Agreement shall be resolved in favor of the higher standard, measurement and performance.

13.1.2 The Parties acknowledge that the need will arise for changes to the measurements specified in this Agreement during the term of this Agreement. Such changes may include the addition or deletion of measurements or a change in the performance standard for any particular metric, as well as the provision of target performance levels, as set forth in this Agreement. Unless otherwise specified in this Agreement, the Parties agree to review all measurements on a quarterly basis to determine if any changes are appropriate, and may include the provision to MCIm of any additional measurements BellSouth may provide itself.

13.1.3 The Parties agree to monitor actual performance on a monthly basis and, if the Parties conclude it is required, develop a process improvement plan to improve quality of service provided as measured by the performance measurements, if necessary. Sucha plan shall be developed where BellSouth's performance falls below either the level of performance it provides itself or the level of performance required in this Agreement.

13.2 BellSouth agrees that Interconnection will be provided in a competitively neutral fashion, at any technically feasible point within its network as stated in this Agreement and that such interconnection will contain all the same features, functions and capabilities, and be at least equal in quality to the level provided by BellSouth to itself or its Affiliates.

13.3 BellSouth agrees that it will provide to MCIm on a nondiscriminatory basis unbundled Network Elements and ancillary services as set forth in this Agreement and the operations support systems as set forth in this Agreement. BellSouth further agrees that these services, or their functional components, will contain all the same features, functions and capabilities and be provided at a level of quality at least equal to the level which it provides to itself or its Affiliates.

13.4. BellSouth agrees that it will provide to MCIm nondiscriminatory access to, poles, ducts, conduits, and rights of way owned or controlled by BellSouth in accordance with the requirements of Section 224 of the Act.

13.5 BellSouth Agrees that it will provide nondiscriminatory access to telephone numbers for as long as BellSouth remains the code administrator for the North American Numbering Plan.

13.6 BellSouth agrees that it will provide to MCIm, in a competitively neutral fashion, interim number portability as set forth herein and in accordance with the applicable rules, regulations and orders of the FCC and this Commission, including the First Report and Order, released July 2, 1996 in CC Docket No. 95-116, regarding Telephone Number Portability, in effect.

13.7 BellSouth agrees that it will provide to MCIm, in a competitively neutral fashion, dialing parity for local exchange service and interexchange service pursuant to the applicable rules, regulations and orders of the state regulatory body and the FCC in effect.

13.8 BellSouth agrees that order entry, provisioning, installation, trouble resolution, maintenance, billing, and service quality with respect to Local Resale will be provided at least as expeditiously as BellSouth provides for itself or for its own retail local service or to others, or to its Affiliates, and that it will provide such services to MCIm in a competitively neutral fashion.

13.9 BellSouth agrees that it will provide on a nondiscriminatory basis space on its premises for physical or virtual collocation, as MCIm may

specify, for equipment necessary for MCIm's interconnection and access to unbundled network elements.

Section 14. Notices

Except as otherwise provided herein, all notices or other communication hereunder shall be deemed to have been duly given when made in writing and delivered in person by overnight courier, or deposited in the United States mail, certified mail, postage prepaid, return receipt requested and addressed as follows:

To MCIm:
MCImetro Access Transmission Services, Inc.
8521 Leesburg Pike
Vienna, VA 22182

Copy to:
General Counsel
MCI Communications Corporation
1801 Pennsylvania Ave, N.W.
Washington, DC 20006

To BellSouth:
Clifford H. Bowers
BellSouth Telecommunications, Inc.
1960 W. Exchange Pl., Ste. 402
Tucker, GA 30084

Copy to:
General Attorney-Interconnection
BellSouth Telecommunications, Inc.
Suite 4300
675 W. Peachtree Street, NE
Atlanta, Georgia 30375

If personal delivery or courier is selected to give notice, a receipt of such delivery shall be obtained. The address to which notices or communications may be given to either party may be changed by written notice given by such party to the other pursuant to this Section 14.

Section 15. Remedies

15.1 The obligations of BellSouth and the services offered under this Agreement are unique. Accordingly, in addition to any other available rights or remedies, MCIm may sue in equity for specific performance.

15.2 Left blank intentionally

15.3 All rights of termination, cancellation or other remedies prescribed in this Agreement, or otherwise available, are cumulative and are not intended to be exclusive of other remedies to which the injured party may be entitled at law or equity in case of any breach or threatened breach by the other party of any provision of this Agreement. Use of one or more remedies shall not bar use of any other remedy for the purpose of enforcing the provisions of this Agreement.

Section 16. Waivers

16.1 No waiver of any provisions of this Agreement and no consent to any default under this Agreement shall be effective unless the same shall be in writing and properly executed by or on behalf of the party against whom such waiver or consent is claimed.

16.2 No course of dealing or failure of any party to strictly enforce any term, right, or condition of this Agreement in any instance shall be construed as a general waiver or relinquishment of such term, right or condition.

16.3 Waiver by either party of any default by the other party shall not be deemed a waiver of any other default.

Section 17. Survival

The following provisions of this Part A shall survive the expiration or termination of this Agreement: Sections 10, 11, 12, 21, 22, 26 and 27, and any other obligations to be performed after the expiration or termination of the Agreement.

Section 18. Force Majeure

Neither party shall be held liable for any delay or failure in performance of any part of this Agreement from any cause beyond its control and without its fault or negligence, such as acts of God, acts of civil or military authority, embargoes, epidemics, war, terrorist acts, riots, insurrections, fires, explosions, earthquakes, strikes, nuclear accidents, floods, power blackouts, or unusually severe weather. In the event of any such excused delay in the performance of a party's obligations(s) under this Agreement, the due date for the performance of the original obligation(s) shall be extended by a term equal to the time lost by reason of delay. In the event of such delay, the delaying party shall perform its obligations at a performance level no less than that which it uses for its own operations and will resume performance in a nondiscriminatory manner.

Section 19. Non-Discriminatory Treatment

If as a result of any proceeding or filing before any Court, State Commission, or the Federal Communications Commission, voluntary agreement or arbitration proceeding pursuant to the Act or pursuant to any applicable state law, BellSouth becomes obligated to provide Services and Elements, whether or not presently covered by this Agreement, to a third Party at rates or on terms and conditions more favorable to such third Party than the applicable provisions of this Agreement, MCIm shall have the option to substitute such more favorable rates, terms, and conditions for the relevant provisions of this Agreement which shall apply to the same States as such other Party, and such substituted rates, terms or conditions shall be deemed to have been effective under this Agreement as of the effective date thereof. BellSouth shall provide to MCIm any BellSouth agreement between BellSouth and any third Party within fifteen (15) days of the filing of such agreement with any state Commission.

Section 20. Termination

20.1 In the event of breach of any material provision of this Agreement by either party, the non-breaching party shall give the other party written notice thereof, and:

20.1.1 If such material breach is for non-payment of amounts due hereunder pursuant to Attachment VIII, Section 3.1.18, the breaching party shall cure such breach within thirty (30) days of receiving such notice. The non-breaching party shall be entitled to pursue all available legal and equitable remedies for such breach. Amounts disputed in good faith and withheld or set off shall not be deemed "amounts due hereunder" for the purpose of this provision.

20.1.2 If such material breach is for any failure to perform in accordance with this Agreement, which adversely affects the non-breaching party's subscribers, the non-breaching party shall give notice of the breach and the breaching party shall cure such breach to the non-breaching party's reasonable satisfaction within ten (10) business days, and if breaching party does not, the non-breaching party may, at its sole option, terminate this Agreement, or any parts hereof. The non-breaching party shall be entitled to pursue all available legal and equitable remedies for such breach. Notice under this Subsection 20.1.2 may be given electronically or by facsimile and in such case shall be deemed received when sent.

20.1.3 If such material breach is for any other failure to perform in accordance with this Agreement, the breaching party shall cure

such breach to the non-breaching party's reasonable satisfaction within forty-five (45) days, and if it does not, the non-breaching party may, at is sole option terminate this Agreement, or any parts hereof. The non-breaching party shall be entitled to pursue all available legal and equitable remedies for such breach.

20.2 MCIm may terminate any Services provided under this Agreement upon thirty (30) days written notice to BellSouth unless a different notice period or different conditions are specified for termination of such Services in this Agreement, or pursuant to any applicable tariff, in which event such specific period or conditions shall apply. Where there is no such different notice period or different condition specified, MCIm's liability shall be limited to payment of the amounts due for any terminated Local Service(s), Network Element(s), Combination(s), or ancillary service(s) provided up to and including the date of termination. Notwithstanding the foregoing, the provisions of section 11, supra, shall still apply. Upon termination, BellSouth agrees to cooperate in an orderly and efficient transition to MCIm or another vendor such that the level and quality of the services and Elements is not degraded and to exercise its best efforts to effect an orderly and efficient transition. MCIm agrees that it may not terminate the entire Agreement pursuant to this section.

Section 21. Confidentiality and Publicity

21.1 All confidential or proprietary information disclosed by either party during the negotiations and the term of this Agreement shall be protected by the parties in accordance with the terms of this Section 21. All information which is disclosed by one party ("Disclosing Party") to the other ("Recipient") in connection with this Agreement, or acquired in the course of performance of this Agreement, shall be deemed confidential and proprietary to the Disclosing Party and subject to this Agreement, such information including but not limited to, orders for services, usage information in any form, and Customer Proprietary Network Information ("CPNI") as that term is defined by the Act and the rules and regulations of the FCC ("Confidential Information").

21.1.1 For a period of eight (8) years from receipt of Confidential Information, Recipient shall (i) use it only for the purpose of performing under this Agreement, (ii) hold it in confidence and disclose it only to employees who have a need to know it in order to perform under this Agreement, and (iii) safeguard it from unauthorized use of Disclosure using no less than the degree of care with which Recipient safeguards it own Confidential Information. If Recipient wishes to disclose the Discloser's

Confidential Information to a third party agent or consultant in order to perform Recipient's obligations hereunder, such third party must have executed a written agreement comparable in scope to the terms of this Section 21.

21.1.2 Recipient shall have no obligation to safeguard Confidential Information (i) which was in the Recipient's possession free of restriction prior to its receipt from Disclosing Party, (ii) which becomes publicly known or available through no breach of this Agreement by Recipient, (iii) which is rightfully acquired by Recipient free of restrictions on its Disclosure, or (iv) which is independently developed by personnel of Recipient to whom the Disclosing Party's Confidential Information had not been previously disclosed. Recipient may disclose Confidential Information if required by law, a court, or governmental agency, provided that Disclosing Party has been notified of the requirement promptly after Recipient becomes aware of the requirement, and provided that Recipient undertakes all lawful measures to avoid disclosing such information until Disclosing Party has had reasonable time to obtain a protective order. Recipient agrees to comply with any protective order that covers the Confidential Information to be disclosed.

21.1.3 Each party agrees that Disclosing Party would be irreparably injured by a breach of this Section 21 by Recipient or its representatives and that Disclosing Party shall be entitled to seek equitable relief, including injunctive relief and specific performance, in the event of any breach of this Section 21. Such remedies shall not be exclusive, but shall be in addition to all other remedies available at law or in equity.

21.2 CPNI related to MCIm's subscribers obtained by virtue of Local Interconnection or any other service provided under this Agreement shall be MCIm's proprietary information and may not be used by BellSouth for any purpose except performance of its obligations under this Agreement, and in connection with such performance, shall be disclosed only to employees with a need to know, unless the MCIm subscriber expressly directs MCIm to disclose such information to BellSouth pursuant to the requirements of Section 222(c)(2) of the Act. In the event such authorization is obtained, BellSouth may use or disclose only such information as MCIm provides pursuant to such authorization and may not use information that BellSouth has otherwise obtained, directly or indirectly, in connection with its performance under this Agreement. CPNI related to BellSouth's subscribers obtained by virtue of Local Interconnection shall be BellSouth's proprietary information and may not

be used by MCIm for any purpose except performance of its obligations under this Agreement, and in connection with such performance shall be disclosed only to employees with a need to know, unless the BellSouth subscriber expressly directs BellSouth to disclose such information to MCIm pursuant to the requirements of Section 222(c)(2) of the Act. In the event such authorization is obtained, MCIm may use or disclose only such information as BellSouth provides pursuant to such authorization and may not use information that MCIm has otherwise obtained, directly or indirectly, in connection with its performance under this Agreement.

21.3 Unless otherwise mutually agreed upon, neither party shall publish or use the other party's logo, trademark, service mark, name, language, pictures, or symbols or words from which the other party's name may reasonably be inferred or implied in any product, service, advertisement, promotion, or any other publicity matter.

21.4 Neither party shall produce, publish or distribute any press release or other publicity referring to the other party or its Affiliates, or announcing the execution or discussing the terms of this Agreement without prior notice to the other party. In no event shall either party mischaracterize the contents of this Agreement in any public statement or in any representation to a governmental entity or member thereof.

21.5 Except as otherwise expressly provided in this Section 21, nothing herein shall be construed as limiting the rights of either party with respect to its customer information under any applicable law, including without limitation Section 222 of the Act.

***Section 22.* Audits and Inspections**

22.1 The following audit procedures shall apply.

22.1.1 Subject to BellSouth's reasonable security requirements and except as may be otherwise specifically provided in this Agreement, MCIm may audit BellSouth's books, records and other documents once in each Contract Year for the purpose of evaluating the accuracy of BellSouth's billing and invoicing. MCIm may employ other persons or firms for this purpose. Such audit shall take place at a time and place agreed on by the Parties no later than thirty (30) days after notice thereof to BellSouth.

22.1.2 BellSouth shall promptly correct any billing error that is revealed in an audit, including making refund of any overpayment

by MCIm in the form of a credit on the invoice for the first full billing cycle after the Parties have agreed upon the accuracy of the audit results. Any Disputes concerning audit results shall be resolved pursuant to the Dispute Resolution Procedures described in Section 23 of this Attachment.

22.1.3 BellSouth shall cooperate fully in any such audit, providing reasonable access to any and all appropriate BellSouth employees and books, records and other documents reasonably necessary to assess the accuracy of BellSouth's bills.

22.1.4 MCIm may audit BellSouth's books, records and documents more than once during any Contract Year if the previous audit found previously uncorrected net variances or errors in invoices in BellSouth's favor with an aggregate value of at least two percent (2%) of the amounts payable by MCIm for Services and Elements or Combinations provided during the period covered by the audit.

22.1.5 Audits shall be at MCIm's expense, subject to reimbursement by BellSouth in the event that an audit finds an adjustment in the charges or in any invoice paid or payable by MCIm hereunder by an amount that is, on an annualized basis, greater than two percent (2%) of the aggregate charges for the Services and Elements during the period covered by the audit.

22.1.6 Upon (i) the discovery by BellSouth of overcharges not previously reimbursed to MCIm or (ii) the resolution of disputed audits, BellSouth shall promptly reimburse MCIm the amount of any overpayment times the highest interest rate (in decimal value) which may be levied by law for commercial transactions, compounded daily for the number of days from the date of overpayment to and including the date that payment is actually made. In no event, however, shall interest be assessed on any previously assessed or accrued late payment charges.

22.2 Subject to reasonable security requirements, either Party may audit the books, records and other documents of the other for the purpose of evaluating usage pertaining to transport and termination of local traffic. Where such usage data is being transmitted through CABS, the audit shall be conducted in accordance with CABS or other applicable requirements approved by the appropriate State Commission. If data is not being transferred via CABS, either Party may request an audit for such purpose once each Contract Year. Either Party may employ other

persons or firms for this purpose. Any such audit shall take place no later than thirty (30) days after notice thereof to the other Party.

22.2.1 Either Party shall promptly correct any reported usage error that is revealed in an audit, including making payment of any underpayment after the Parties have agreed upon the accuracy of the audit results. Any Disputes concerning audit results shall be resolved pursuant to the Dispute Resolution Procedures described in Section 23 of Part A of this Agreement.

22.2.2 The Parties shall cooperate fully in any such audit, providing reasonable access to any and all appropriate employees and books, records and other documents reasonably necessary to assess the usage pertaining to transport and terminating of local traffic.

22.3 This Section 22 shall survive expiration or termination of this Agreement shall for a period of two (2) years after expiration or termination of this Agreement.

Section 23. Dispute Resolution Procedures

The parties recognize and agree that the Commission has continuing jurisdiction to implement and enforce all terms and conditions of this Agreement. Accordingly, the parties agree that any dispute arising out of or relating to this Agreement that the parties themselves cannot resolve, may be submitted to the Commission for resolution. The parties agree to seek expedited resolution by the Commission, and shall request that resolution occur in no event later than sixty (60) days from the date of submission of such dispute. If the Commission appoints an expert(s) or other facilitator(s) to assist in its decision making, each party shall pay half of the fees and expenses so incurred. During the Commission proceeding each party shall continue to perform its obligations under this Agreement; provided, however that neither party shall be required to act in any unlawful fashion. This provision shall not preclude the parties from seeking relief available in any other forum.

Section 24. Bona Fide Request Process for Further Unbundling

BellSouth shall, upon request of MCIm, and to the extent technically feasible, provide to MCIm access to its unbundled elements for the provision of MCIm's telecommunications service. Any request by MCIm for access to an unbundled element that is not already available shall be treated as an unbundled element Bona Fide Request. The parties shall adhere to the process as agreed and described in Exhibit 1.

Section 25. Branding

25.1 In all cases in which BellSouth has control over handling of services MCIm may provide using services provided by BellSouth under this Agreement, BellSouth shall brand any and all such services at all points of customer contact exclusively as MCIm services, or otherwise as MCIm may specify, or be provided with no brand at all, as MCIm shall determine. BellSouth may not unreasonably interfere with branding by MCIm. If for any reason, BellSouth finds that it is not possible to brand operator services and directory service calls for MCIm, BellSouth shall revert to generic unbranding for all local service providers, including itself.

25.2 MCIm shall provide the exclusive interface to MCIm subscribers, except as MCIm shall otherwise specify. In those instances where MCIm requires BellSouth personnel or systems to interface with MCIm subscribers, such BellSouth personnel shall identify themselves as representing MCIm, or such brand as MCIm may specify, and shall not identify themselves as representing BellSouth or any other entity, and shall refrain from marketing BellSouth, directly or indirectly, to MCIm subscribers.

25.3 BellSouth shall distribute to MCIm subscribers materials provided by MCIm. Such materials shall be prepared by MCIm and provided in sufficient quantities to BellSouth at MCIm's cost. All forms, business cards or other business materials furnished by BellSouth to MCIm subscribers shall be provided by MCIm unless otherwise agreed by MCIm, in its sole discretion, in which case, any such customer materials shall be subject to MCIm's prior review and approval, and shall bear no corporate name, logo, trademark or trade names other than MCIm or its Affiliates or such other brand as MCIm, in its sole discretion, shall determine. If, however, the technician does not have a company specific card available at the time services are performed, the BellSouth technician shall use a generic card.

25.4 Except as specifically permitted MCIm, in no event shall BellSouth provide information to MCIm subscribers about MCIm or MCIm's products or services.

25.5 BellSouth shall provide, for MCIm's review and approval, the methods and procedures, training and approaches to be used by BellSouth to assure that BellSouth meets MCIm's branding requirements.

25.6 This Section 25 shall not confer on either party rights to the service

marks, trademarks and trade names owned by or used in connection with services by the other party or its Affiliates, except as expressly permitted by the other party.

25.7 BellSouth will not be liable for any error, mistake or omission, other than intentional acts or omissions or gross negligence, resulting from the requirements to distribute MCIm's leave behind materials.

Section 26. Taxes

26.1 Definition

For purposes of this Section 26, the terms "taxes" and "fees" shall include but not be limited to federal, state or local sales, use, excise, gross receipts or other taxes or tax-like fees of whatever nature and however designated (including tariff surcharges and any fees, charges or other payments, contractual or otherwise, for the use of public streets or rights of way, whether designated as franchise fees or otherwise) imposed, or sought to be imposed, on either of the parties and measured by the charges or payments, for the services furnished hereunder, excluding any taxes levied on income.

26.2 Taxes And Fees Imposed Directly On Either Seller Or Purchaser

26.2.1 Taxes and fees imposed on the providing Party, which are neither permitted nor required to be passed on by the providing Party to its Customer, shall be borne and paid by the providing Party.

26.2.2 Taxes and fees imposed on the purchasing Party, which are not required to be collected and/or remitted by the providing Party, shall be borne and paid by the purchasing Party.

26.3 Taxes And Fees Imposed On Purchaser But Collected And Remitted By Seller

26.3.1 Taxes and fees imposed on the purchasing Party shall be borne by the purchasing Party, even if the obligation to collect and/or remit such taxes or fees is placed on the providing Party.

26.3.2 To the extent permitted by Applicable Law, any such taxes and/or fees shall be shown as separate items on applicable billing documents between the Parties. Notwithstanding the foregoing, the purchasing Party shall remain liable for any such taxes and fees

regardless of whether they are actually billed by the providing Party at the time that the respective service is billed.

26.3.3 If the purchasing Party determines that in its opinion any such taxes or fees are not lawfully due, the providing Party shall not bill such taxes or fees to the purchasing Party if the purchasing Party provides written certification, reasonably satisfactory to the providing Party, stating that it is exempt or otherwise not subject to the tax or fee, setting forth the basis therefor, and satisfying any other requirements under applicable law. If any authority seeks to collect any such tax or fee that the purchasing Party has determined and certified not to be lawfully due, or any such tax or fee that was not billed by the providing Party, the purchasing Party may contest the same in good faith, at its own expense. In the event that such contest must be pursued in the name of the providing Party, the providing Party shall permit the purchasing Party to pursue the contest in the name of providing Party. In the event of any such contest, the purchasing Party shall furnish the providing Party with notice of the pending proceeding, the final resolution thereof and any action therein that would affect the providing party's obligation to collect and remit.

26.3.4 In the event that all or any portion of an amount sought to be collected must be paid in order to contest the imposition of any such tax or fee, or to avoid the existence of a lien on the assets of the providing Party during the pendency or such contest, the purchasing Party shall be responsible for such payment and shall be entitled to the benefit of any refund or recovery.

26.3.5 Left blank intentionally.

26.3.6 Notwithstanding any provision to the contrary, the purchasing Party shall protect, indemnify and hold harmless (and defend at the purchasing Party's expense) the providing Party from and against any such tax or fee, interest or penalties thereof, or other charges or payable expenses (including reasonable attorney fees) with respect thereto, which are reasonably and necessarily incurred by the providing Party in connection with any claim for or contest of any such tax or fee.

26.3.7 Each Party shall provide the other Party with timely written notice of any assessment, proposed assessment or other claim for any additional amount of such a tax or fee by a taxing authority.

26.4 Taxes And Fees Imposed On Providing Party

26.4.1 Taxes and fees imposed on the providing Party, which are permitted or required to be passed on by the providing Party to its Customer, shall be borne by the purchasing Party.

26.4.2 To the extent permitted by applicable law, any such taxes and/or fees shall be shown as separate items on applicable billing documents between the Parties. Notwithstanding the foregoing, the purchasing Party shall remain liable for any such taxes and fees regardless of whether they are actually billed by the providing Party at the time that the respective service is billed.

26.4.3 If the purchasing Party disagrees with the providing Party's determination as to the application or basis for any such tax or fees, the parties shall consult with respect to the imposition and billing of such tax or fee and with respect to whether to contest the imposition of such tax or fee. Notwithstanding the foregoing, the providing Party shall retain responsibility for determining whether and to what extent any such taxes or fees are applicable. The providing Party shall further retain responsibility for determining whether and how to contest the imposition of such taxes or fees, provided, however, the Parties agree to consult in good faith as to such contest and that any such contest undertaken at the request of the purchasing Party shall be at the purchasing Party's expense. In the event that such contest must be pursued in the name of the providing Party, providing Party shall permit purchasing Party to pursue the contest in the name of the providing Party and the providing Party shall have the opportunity to participate fully in the preparation of such contest.

26.4.4 If, after consultation in accordance with the preceding Section 26.4.3, the purchasing Party does not agree with the providing Party's final determination as to the application or basis of a particular tax or fee, and if the providing Party, after receipt of a written request by the purchasing Party to contest the imposition of such tax or fee with the imposing authority, fails or refuses to pursue such contest or to allow such contest by the purchasing Party, the purchasing Party may utilize the dispute resolution process outlined in Section 16 of the General Terms and Conditions of this Agreement and Attachment 1. Utilization of the dispute resolution process shall not relieve the purchasing party from liability for any tax or fee billed by the providing Party pursuant to this subsection during the pendency of such dispute resolution

proceeding. In the event that the purchasing Party prevails in such dispute resolution proceeding, it shall be entitled to a refund in accordance with the final decision therein. Notwithstanding the foregoing, if at any time prior to a final decision in such dispute resolution proceeding the providing Party initiates a contest with the imposing authority with respect to any of the issues involved in such dispute resolution proceeding, the dispute resolution proceeding shall be dismissed as to such common issues and the final decision rendered in the contest with the imposing authority shall control as to such issues.

26.4.5 In the event that all or any portion of an amount sought to be collected must be paid in order to contest the imposition of any such tax or fee with the imposing authority, or to avoid the existence of a lien on the assets of the providing Party during the pendency of such contest, the purchasing Party shall be responsible for such payment and shall be entitled to the benefit of any refund or recovery.

26.4.6 Left blank intentionally.

26.4.7 Notwithstanding any provision to the contrary, the purchasing Party shall protect, indemnify and hold harmless (and defend at the purchasing Party's expense) the providing Party from and against any such tax or fee, interest or penalties thereon, or other reasonable charges or payable expenses (including reasonable attorney fees) with respect thereto, which are incurred by the providing Party in connection with any claim for or contest of any such tax or fee.

26.4.8 Each Party shall provide the other Party with timely written notice of any assessment, proposed assessment or other claim for any additional amount of such a tax or fee by a taxing authority.

26.5 Mutual Cooperation

Unless otherwise provided herein, in any contest of a tax or fee by one Party, the other Party shall cooperate fully by providing records, testimony and such additional information or assistance as may reasonably be necessary to pursue the contest. Further, the other Party shall be reimbursed for any reasonable and necessary out-of-pocket copying and travel expenses incurred in assisting in such contest.

Section 27. Responsibility for Environmental Contamination

27.1 MCIm shall in no event be liable to BellSouth for any costs whatsoever resulting from the presence or release of any environmental hazard that MCIm did not introduce to the affected work location so long as MCIm's actions do not cause or substantially contribute to the release of any Environmental Hazard. BellSouth shall, at MCIm's request, indemnify, defend, and hold harmless MCIm, each of its officers, directors and employees from and against any losses, damages, claims, demands, suits, liabilities, fines, penalties and expenses (including reasonable attorneys fees) that arise out of or from (i) any environmental hazard that BellSouth, its contractors or agents introduce to the work locations or (ii) the presence or release of any environmental hazard for which BellSouth is responsible under Applicable Law, to the extent the release of any Environmental Hazard is not caused or substantially contributed to by MCIm's actions.

27.2 BellSouth shall in no event be liable to MCIm for any costs whatsoever resulting from the presence or release of any environmental hazard that BellSouth did not introduce to the affected work location, so long as BellSouth's actions do not cause or substantially contribute to the release of any Environmental Hazards. MCIm shall, at BellSouth's request, indemnify, defend, and hold harmless BellSouth, each of its officers, directors and employees from and against any losses, damages, claims, demands, suits, liabilities, fines, penalties and expenses (including reasonable attorneys' fees) that arise out of or result from (i) any environmental hazard that MCIm, its contractors or agents introduce to the work locations, or (ii) the presence of release of any environmental hazard for which MCIm is responsible under applicable law to the extent the release of any Environmental Hazard is not caused or substantially contributed to by BellSouth's actions.

Section 28. Amendments and Modifications

No provision of this Agreement shall be deemed waived, amended or modified by either party unless such a waiver, amendment or modification is in writing, dated, and signed by both parties.

Section 29. Severability

Subject to Section 2 - Regulatory Approvals, if any part of this Agreement is held to be invalid for any reason, such invalidity will affect only the portion of this Agreement which is invalid. In all other respects this Agreement will stand as if such invalid provision had not been a part thereof, and the remainder of the Agreement shall remain in full force and effect.

Section 30. Headings Not Controlling

The headings and numbering of Sections, Parts and Attachments in this Agreement are for convenience only and shall not be construed to define or limit any of the terms herein or affect the meaning or interpretation of this Agreement.

Section 31. Entire Agreement

This Agreement, including all Parts and Attachments and subordinate documents attached hereto or referenced herein, all of which are hereby incorporated by reference herein, constitute the entire matter thereof, and supersede all prior oral or written agreements, representations, statements, negotiations, understandings, proposals, and undertakings with respect to the subject matter thereof.

Section 32. Counterparts

This Agreement may be executed in counterparts. Each counterpart shall be considered an original and such counterparts shall together constitute one and the same instrument.

Section 33. Successors and Assigns

This Agreement shall be binding upon, and inure to the benefit of, the parties hereto and their respective successors and permitted assigns.

Section 34

The Parties acknowledge that they have incorporated into this Agreement the provisions listed in Exhibit 2 which were adopted from the arbitrated provisions contained in the draft agreement between AT&T and BellSouth as reflected in Order on Arbitration, docket No. 96-358-C, In Re: Petition of AT&T Communications of the Southern States, Inc. for Arbitration of an Interconnection Agreement with BellSouth Telecommunications, Inc., dated March 10, 1997 ("AT&T/BellSouth Agreement"). The Parties agree that if any further order of the Commission, the Federal Communications Commission or a court of competent jurisdiction requires or contemplates alteration and/or modification of any of these arbitrated provisions in the AT&T/BellSouth Agreement, such alterations and/or modifications shall apply to the corresponding provisions incorporated in this Agreement effective immediately upon issuance of the court or agency order requiring alteration and/or modification. In the event of any final order not stayed requiring or contemplation alteration and/or modification or the provisions listed in Exhibit 2, the Parties further agree that they will execute a signed writing

amending this Agreement to reflect such alterations and/or modifications within 30 days of the issuance of any court or agency order altering and/or modifying the AT&T/BellSouth Agreement, unless a request for stay of such order is pending or a stay has been granted, regardless of any intention by either of them to further appeal such order. The Parties further agree that this paragraph shall not apply to provisions of the AT&T/BellSouth Agreement, whether arbitrated or negotiated, that have not been incorporated in any of the provisions listed in Exhibit 2

Section 35 Effective Date

This Agreement shall be deemed Effective when signed by the Parties and approved by the Public Service Commission of South Carolina.

IN WITNESS WHEREOF, each of the parties has caused this Agreement to be executed by its duly authorized representatives.

MCImetro Access Transmission Service, Inc.

By: Marcel Henry

Name: Marcel Henry

Title: Vice President

Date: July 31, 1997

BellSouth Telecommunications, Inc.

By:

Name: Jerry D. Hendrix

Title: Director

Date: 08/07/97

EXHIBIT 1

BONA FIDE REQUEST PROCESS

1.0 Bona Fide Requests are to be used when MCIm requests a change to any Services and Elements provided hereunder, including features, capabilities, or functionality.

1.1 A Bona Fide Request shall be submitted in writing by MCIm and shall specifically identify the required service date, technical requirements, space requirements and/or such specifications that clearly define the request such that BellSouth has sufficient information to analyze and prepare a response. Such a request also shall include, MCIm's designation of the request as being (i) pursuant to the Telecommunications Act of 1996 or (ii) pursuant to the needs of the business.

1.2 Although not expected to do so, MCIm may cancel, without penalty, a Bona Fide Request in writing at any time. BellSouth will then cease analysis of the request.

1.3 Within two (2) business days of its receipt, BellSouth shall acknowledge in writing, the receipt of the Bona Fide Request and identify a single point of contact and any additional information needed to process the request.

1.4 Except under extraordinary circumstances, within thirty (30) days of its receipt of a Bona Fide Request, Bell South shall provide to MCIm a preliminary analysis of the Bona Fide Request. The preliminary analysis will include BellSouth's proposed price (plus or minus 25 percent) and state whether BellSouth can meet MCIm's requirements, the requested availability date, or, if BellSouth cannot meet such date, provide an alternative proposed date together with a detailed explanation as to why BellSouth is not able to meet MCIm's requested availability date. BellSouth also shall indicate in this analysis its agreement or disagreement with MCIm's designation of the request as being pursuant to the Act or pursuant to the needs of the business. If BellSouth does not agree with MCIm's designation, it may utilize the Dispute Resolution Process provided in this Agreement. In no event, however, shall any such dispute delay BellSouth's processing of the request. If BellSouth determines that it is not able to provide MCIm with a preliminary analysis with thirty (30) days of BellSouth's receipt of a Bone Fide Need request, BellSouth will inform MCIm as soon as practicable. MCIm and BellSouth will then determine a mutually agreeable date for receipt of the preliminary analysis.

1.5 As soon as possible, but in no event more than ninety (90) days after receipt of the request, BellSouth shall provide MCIm with a firm Bona Fide Request

quote which will include at a minimum, the firm availability date, the applicable rates and the installation intervals, and a binding price quote.

1.6 Unless MCIm agrees otherwise, all proposed prices shall be the pricing principles of this Agreement, in accordance with the Act, and any applicable FCC and Commission rules and regulations. Payments for services purchased under a Bona Fide Request will be made as specified in this Agreement, unless otherwise agreed to by MCIm.

1.7 Within thirty (30) days after receiving the firm Bona Fide Request quote from BellSouth, MCIm will notify BellSouth in writing of its acceptance or rejection of BellSouth's proposal. If at any time an agreement cannot be reached as to the terms and conditions or price of the request, or if BellSouth responds that it cannot or will not offer the requested item in the Bona Fide Request and MCIm deems the item essential to its business operations, and deems BellSouth's position to be inconsistent with the Act, FCC or Commission regulations and/or the requirements of this Agreement, the Dispute Resolution Process set forth in this Agreement may be used by either Party to reach a resolution.

EXHIBIT 2

Part / Attachment	Section
A - General Terms & Conditions	1.2.1 - 1.2.2
A	11-12
A	15.2
A	19
A	20.2
A	22
A	25.1
A	25.7
I - Pricing	2.1 (Wholesale Discount)
I	Table 1(Pricing Table)
II - Resale	2.2
II	2.2.2 (all subsections)
II	2.3.3
II	2.3.4
II	2.3.5 (all subsections)
II	2.3.6 (all subsections)
II	2.3.7
III - Network Elements	2.3
III	2.4
III	2.7
III	4.4.1.1.1
III	4.5.4
III	4.6.1.1
III	7.1.2
III	7.2.1.2
III	7.2.1.3
III	7.2.1.16
III	7.2.1.17
III	7.2.2.2.2
III	7.2.2.2.3
III	10.1.4.2
III	13.4.2.25 (all subsections)
III	14.1
III	14.2.1.2
III	14.2.1.5
III	14.2.9

Part / Attachment	Section
IV - Interconnection	2.2.2.1 -2.2.2.2
IV	2.4.1 - 2.4.3
VI - Rights of Way	1.1.28
VI	1.2.6
VI	1.2.9.5
VI	1.3.6.7
VI	1.3.9.3
VI	1.3.9.4
VI	1.5.2.2
VI	1.6.3
VI	2 (all subsections)
VIII - Business Processes	2.1.5.3
VIII	2.1.5.4
VIII	2.2.15.1, 2.2.15.4 - 2.2.15.6
VIII	2.3.2.3.1.2
VIII	2.3.2.6
VIII	2.5 (all subsections)
VIII	3.4 (all subsections)
VIII	4.1.1.7
VIII	4.4 (all subsections)
VIII	4.5 (all subsections)
VIII	5.1.14
VIII	5.4 (all subsections)
VIII	6.1.2.1
VIII	6.1.2.2
VIII	6.1.2.3
VIII	6.1.2.3.8
VIII	6.1.2.3.9.3
VIII	6.1.3.1
VIII	6.1.3.2
VIII	6.1.3.3
VIII	6.1.3.3.2
VIII	6.1.3.15
VIII	6.1.4.1.1
IX - Network Security	3.1
IX	3.1.2 - 3.1.3

Part / Attachment	Section
X - Credits for Performance Standard Failures	Entire Attachment

PART B -- DEFINITIONS

"911 SITE ADMINISTRATOR" is a person assigned by MCIm to establish and maintain E911 service location information for its subscribers.

"911 SERVICE" means a universal telephone number which gives the public direct access to the Public Safety Answering Point (PSAP). Basic 911 service collects 911 calls from one or more local exchange switches that serve a geographic area. The calls are then sent to the correct authority designated to receive such calls.

"ASR" (ACCESS SERVICE REQUEST) means the industry standard forms and supporting documentation used for ordering Access Services. The ASR may be used to order trunking and facilities between MCIm and ILEC for Local Interconnection.

"ACCESS SERVICES" refers to interstate and intrastate switched access and private line transport services.

"ACT" means the Communications Act of 1934 as amended.

"AIN" (ADVANCED INTELLIGENT NETWORK) is a network functionality that permits specific conditions to be programmed into a switch which, when met, directs the switch to suspend call processing and to receive special instructions for further call handling instructions in order to enable carriers to offer advanced features and services.

"AFFILIATE" is a person that (directly or indirectly) owns or controls, is owned or controlled by, or is under common ownership or control with, another person. For the purposes of this paragraph, the term "own" means to own an equity interest (or the equivalent thereof) of more than 10 percent.

"ALI" (AUTOMATIC LOCATION IDENTIFICATION) is a proprietary database developed for E911 systems that provides for a visual display of the caller's telephone number, address and the names of the emergency response agencies that are responsible for that address. The Alternative Local Exchange Company will provide ALI record information in National Emergency Number Association (NENA) Version #2 format. The ALI also shows an Interim Number Portability (INP) number if applicable.

"ALI/DMS" (AUTOMATIC LOCATION IDENTIFICATION/DATA

MANAGEMENT SYSTEM) means the emergency service (E911/911) database containing customer location information (including name, address, telephone number, and sometimes special information from the local service provider) used to determine to which Public Safety Answering Point (PSAP) to route the call.

"AMA" means the Automated Message Accounting structure inherent in switch technology that initially records telecommunication message information. AMA format is contained in the Automated Message Accounting document, published by Bellcore as GR-1100-CORE which defines the industry standard for message recording.

"ANI" (AUTOMATIC NUMBER IDENTIFICATION) is a feature that identifies and displays the number of a telephone that originates a call.

"ARS" (AUTOMATIC ROUTE SELECTION) is a service feature that provides for automatic selection of the least expensive or most appropriate transmission facility for each call based on criteria programmed into the system.

"BLVBLI" (Busy LINE VERIFY/BUSY LINE INTERRUPT) means an operator call in which the end user inquiries as to the busy status of, or requests an interruption of, a call on an Exchange Service.

"BST" and "BellSouth" both mean BellSouth Telecommunications, Inc.

"CABS" means the Carrier Access Billing System which is defined in a document prepared under the direction of the Billing Committee of the OBF. The Carrier Access Billing System document is published by Bellcore in Volumes 1, 1A, 2, 3, 3A, 4 and 5 as Special Reports SR-OPT-001868, SR-OPT-0011869, SR-OPT-001871, SR-OPT-001872, SR-OPT-001873, SR-OPT-001874, and SR-OPT-001875, respectively, and contains the recommended guidelines for the billing of access and other connectivity services.

"CCS" (COMMON CHANNEL SIGNALING) means a method of digitally transmitting call set-up and network control data over a digital signaling network fully separate from the public switched telephone network that carriers the actual call.

"CLEC" means a Competitive Local Exchange Carrier.

"CPN" (CALLING PARTY NUMBER) is a Common Channel Signaling parameter which refers to the number transmitted through the network identifying the calling party.

"CENTRAL OFFICE SWITCH" or "CENTRAL OFFICE" means a switching entity within the public switched network, including but not limited to end office switches and tandem office switches. Central office switches may be employed as combination End Office/Tandem Office Switches (Combination Class 5/Class 4).

"CENTREX" means a Telecommunications Service that uses central office switching equipment for call routing to handle direct dialing of calls, and to provide numerous private branch exchange-like features.

"CHARGE NUMBER" is a CCS parameter which refers to the number transmitted through the network identifying the billing number of the calling party.

"CLASS" (Bellcore Service Mark) -- Set of call-management service features that utilize the capability to forward a calling party's number between end offices as part of call setup. Features include Automatic Callback, Automatic Recall, Caller ID, Call trace, and Distinctive Ringing.

"COLLOCATION" means the right of MCIm to place equipment of its choice in BellSouth's central offices or other BellSouth locations as described in the rules and regulations of the FCC in effect.

"COMBINATIONS" means provision by ILEC of two or more connected Network Elements ordered by MCIm to provide its telecommunication services in a geographic area or to a specific customer and that are placed on the same order by MCIm.

"Commission" means the South Carolina Public Service Commission.

"CONDUIT" means a tube or protected pathway that may be used to house communication or electrical cables. Conduit may be underground or above ground (for example, inside buildings) and may contain one or more inner ducts.

"CONFIDENTIAL INFORMATION" has that meaning set forth in Section 21 of Part A -- General Terms.

"CONTRACT YEAR" means a twelve (12) month period during the

term of the contract commencing on the Effective Date and each anniversary thereof.

"CONTROL OFFICE" is an exchange carrier center or office designated as its company's single point of contact for the provisioning and maintenance of its portion of local interconnection arrangements.

"CUSTOM CALLING FEATURES" -- Set of call-management service features available to residential and single-line business customers including call-waiting, call-forwarding and three-party calling.

"DBMS" (DATABASE MANAGEMENT SYSTEM) is a computer system used to store, sort, manipulate and update the data required to provide selective routing and ALI.

"DIRECTORY ASSISTANCE DATABASE" refers to any subscriber recorder used by the ILEC in its provision of live or automated operator-assisted directory assistance including but not limited to 411, 555-1212, NPA-555-1212.

"DIRECTORY ASSISTANCE SERVICES" provides Listings to callers. Directory Assistance Services may include the option to complete the call at the caller's direction.

"DIRECTORY LISTINGS" refers to subscriber information, including but not limited to name, address and phone numbers, that is published in any media, including but not limited to traditional white/yellow page directories, specialty directories, CD ROM, and other electronic formats.

"DISCLOSER" means that party to this Agreement which has disclosed Confidential Information to the other party.

"E911" (ENHANCED 911 SERVICE) means a telephone communication service which will automatically route a call dialed "911" to a designated public safety answering point (PSAP) attendant and will provide to the attendant the calling party's telephone number and, when possible, the address from which the call is being placed and the emergency response agencies responsible for the location from which the call was dialed.

"E911 Message Trunk" is a dedicated line, trunk or channel between two central offices or switching devices which provides a voice and signaling path for E911 calls.

"EIS" (EXPANDED INTERCONNECTION SERVICE) is the collocation arrangement which ILEC provides in its designated wire centers.

"EMR" means the Exchange Message Record System used among ILECs for exchanging telecommunications message information for billable, non-billable, sample, settlement and study data. EMR format is contained in BR-010-200-010 CRIS Exchange Message Record, published by Bellcore and which defines the industry standard for exchange message records.

"ESN" (EMERGENCY SERVICE NUMBER) is a number assigned to the ALI and selective routing databases for all subscriber telephone numbers. The ESN designates a unique combination of fire, police and emergency medical service response agencies that serve the address location of each in-service telephone number.

"EFFECTIVE DATE" is the date indicated in Part A on which the Agreement shall become effective.

"EMERGENCY RESPONSE AGENCY" is a governmental entity authorized to respond to requests from the public to meet emergencies.

"ENHANCED DIRECTORY ASSISTANCE" refers to directory Assistance services, including but not limited to reverse search, talking yellow pages, and locator services.

"ENHANCED WHITE PAGES" means optional features available for White Pages Directory listings (e.g., bold, all capitals, logos).

"ENHANCED YELLOW PAGES" means optional features available for Yellow Pages Directory listings (e.g., red type, bold, all capital, additional line of text, indented).

"ENVIRONMENTAL HAZARD" means (1) a release, discharge, leak, spill or disposal (collectively referred to hereafter as "release") of HAZARDOUS MATERIALS has occurred on premises or property that is related to the performance of this Agreement and that such affected material or media is demonstrated through applicable or appropriate testing method to require remediation or removal as determined by all laws, ordinances, statutes, codes, rules, regulations, orders and decrees of the United States, the state, county, city or any other political subdivision in which the release has occurred, and any other political subdivision in which

the release has occurred, and any other political subdivision, agency, or instrumentality exercising jurisdiction over the release, including any applicable federal and state case law and common law interpreting any of the foregoing or (2) any event involving, or exposure to, HAZARDOUS MATERIALS which poses risks to human health, safety or the environment (including, without limitation, indoor or outdoor environment(s) and is regulated under any applicable laws or regulations as described in (1).

"FCC Interconnection Order" is the Federal Communications Commission's First Report and Order in CC Docket No. 96-98 released August 8, 1996.

"HAZARDOUS MATERIALS" means any hazardous or toxic substance, material or waste listed in the United States Department of transportation HAZARDOUS MATERIALS Table at 49 CFR 172.101; and hazardous substance listed by the Environmental Protection Agency (EPA) under the Comprehensive Environmental, Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. sec. 9601, et. seq., as amended, and found at 40 CFR Part 302; any hazardous waste listed under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. sec. 6901, et. seq., as amended, and found at 40 CFR Part 261; any toxic substance regulated by the Toxic Substances Control Act, 15 U.S.C. sec. 2601, et. seq., as amended; any insecticide, fungicide, or rodenticide regulated by the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. sec. 136, et. seq., as amended; and the following specified substances or materials, that may or may not be regulated by the above; (1) asbestos or asbestos-containing materials; (2) petroleum or petroleum-based or derived products or by-product; (3) polychlorinated biphenyl's (PCBs); and (4) radon."

"ILEC" means the incumbent local exchange carrier.

"INP" (INTERIM NUMBER PORTABILITY) is a service arrangement whereby subscribers who change local service providers may retain existing telephone numbers when remaining at their current location or changing their location within the geographic area serviced by the initial carrier's serving central office.

"IP" (INTERCONNECTION POINT) is a mutually agreed upon point of demarcation where the networks of ILEC and MCIm interconnect for the exchange of traffic.

"IXC" (INTEREXCHANGE CARRIER) means a provider of

interexchange telecommunications services.

"LIDB" (LINE INFORMATION DATA BASE(S)) A Service Control Point (SCP) database that provides for such functions as calling card validation for telephone line number cards issued by ILECs and other entities and validation for collect and billed-to-third services.

"MCI" means MCI Telecommunications Corporation.

"MCIm" means MCImetro Access transmission Services, Inc.

"MCIm 911 DATABASE RECORDS" are the MCIm customer records to be provided by MCIm to ILEC for inclusion in ILEC's E911 database.

"MECAB" refers to the Multiple Exchange Carrier Access Billing (MECAB) document prepared by the Billing Committee of the Ordering and Billing Forum (OBF), which functions under the auspices of the Carrier Liaison Committee (CLC) of the Alliance for Telecommunications Industry Solutions (ATIS). The MECAB document, published by Bellcore as Special Report SR-BDS-000983, contains the recommended guidelines for the billing of an access service provided by two or more LECs (including a LEG and a CLEC), or by one LEC in two or more states within a single LATA.

"MECOD" refers to the Multiple Exchange Carriers Ordering and Design (MECOD) Guidelines for Access Services - Industry Support Interface, a document developed by the Ordering/Provisioning Committee under the auspices of the Ordering and Billing Forum (OBF), which functions under the auspices of the Carrier Liaison Committee (CLC) of the Alliance for Telecommunications Industry Solutions (ATIS). The MECOD document, published by Bellcore as Special Report SR STS-002643, establishes recommended guidelines for processing orders for access service which is to be provided by two or more LECs (including a LEG and a CLEC). It is published by Bellcore as SRBDS 00983.

"MSAG" (MASTER STREET ADDRESS GUIDE (MSAG)) is a database defining the geographic area of an E911 service. It includes an alphabetical list of the street names, high-low house number ranges, community names, end emergency service numbers provided by the counties or their agents to ILEC.

"NANP" means the "North American Numbering Plan," the system or method of telephone numbering employed in the United States, Canada, and certain Caribbean countries. It denotes the three digit Numbering Plan Area code and a seven digit telephone number made up of a three digit Central Office code plus a four digit station number.

"NENA" (NATIONAL EMERGENCY NUMBER ASSOCIATION (NENA)) is an association with a mission to foster the technological advancement, availability and implementation of 911 nationwide.

"NP" (NUMBER PORTABILITY) means the ability of users of telecommunications services to retain, at the same location, existing telecommunications numbers without impairment of quality, reliability, or convenience when switching from one telecommunications carrier to another.

"NPA" (NUMBERING PLAN AREA) (sometimes referred to as an area code). Is the three digit indicator which is designated by the first three digits of each 10 digit telephone number within the NANP. Each NPA contains 800 possible NXX Codes. There are two general categories of NPA, "Geographic NPAs" and "Non-Geographic NPAs." A "Geographic NPA" is associated with a defined geographic area, and all telephone numbers bearing such NPA are associated with services provided within that Geographic area. A "Non-Geographic NPA," also known as a "Service Access Code (SAC Code)" is typically associated with a specialized telecommunications service which may be provided across multiple geographic NPA areas; 500, 800, 900, 700, and 888 are examples of Non-Geographic NPAs.

"NXX," "NXX CODE," OR "CENTRAL OFFICE CODE," OR "CO CODE" is the three digit switch entity indicator which is defined by the fourth, fifth and sixth digits of a 10 digit telephone number within the North America Numbering Plan ("NANP").

"NETWORK ELEMENT" means a facility or equipment used in the provision of a telecommunications service including all features, functions and capabilities that are embedded in such facility or equipment.

"OBF" means the Ordering and Billing Forum, which functions under the auspices of the Carrier Liaison Committee (CLC) of the Alliance for Telecommunications Industry Solutions (ATIS).

"OPERATOR SYSTEMS" are network elements that provide

operator and automated call handling with billing, special operator services, subscriber telephone listings and optional call completion services.

"OPERATOR SERVICES" provides (1) operator handling for call completion (e.g. collect calls); (2) operator or automated assistance for billing after the customer has dialed the called number (e.g. credit card calls); and (3) special operator services (e.g. BLV/ELI, Emergency Agency Call).

"P.01 TRANSMISSION GRADE OF SERVICE (GOS)" means a trunk facility provisioning standard with the statistical probability of no more than one call in 100 blocked on initial attempt during the average busy hour.

"PLU" (PERCENT LOCAL USAGE) is a calculation which represents the ratio of the local minutes to the sum of local and intraLATA toll minutes and interLATA minutes, if any, between exchange carriers sent over Local Interconnection Trunks. Directory assistance, BLV/BLVI, 900, 976, transiting calls from other exchange carriers and switched access calls are not included in the calculation of PLU. "POP" means an IXC's point of presence.

"PSAP" (PUBLIC SAFETY ANSWERING POINT (PSAP)) is the public safety communications center where 911 calls placed by the public for a specific geographic area will be answered

"POLE ATTACHMENT" means any attachment by a cable television system or provider of telecommunications service to a pole, duct, conduit, or right-of-way owned or controlled by a utility.

"PROPRIETARY information" shall have the same meaning as Confidential Information.

"ROW" (RIGHT OF WAY (ROW)) is the right to use the land or other property of another party to place poles, conduits, cables, other structures end equipment, or to provide passage to access such structures and equipment.

"RATE CENTER" means the geographic point and corresponding geographic area which are associated with one or more particular NPA-NXX codes which have been assigned to ILEC (or MCIm) for its provision of Basic Exchange Telecommunications Services. The "rate center point" is the finite geographic point identified by a specific V&H coordinate, which is used to measure distance-sensitive end user traffic to/from the particular NPA-NXX

designations associated with the specific Rate Center. The "rate center area" is the exclusive geographic area identified as the area within which ILEC (or MCIm) will provide Basic Exchange Telecommunications Services bearing the particular NPA-NXX designations associated with the specific Rate Center. The Rate Center point must be located within the Rate Center area.

"REAL TIME" means the actual time in which an event takes place, with the reporting on or the recording of the event simultaneous with its occurrence.

"RECIPIENT"- means that party to this Agreement (a) to which Confidential Information has been disclosed by the other party or (b) who has obtained Confidential Information in the course of providing services under this Agreement.

"RESELLER" is a category of Local Exchange service providers who obtain dial tone and associated telecommunications services from another provider through the purchase wholesale priced services for resale to their end user customers.

"ROUTING POINT" means a location which ILEC or MCIm has designated on its own network as the homing (routing) point for traffic inbound to Basic Exchange Services provided by the ILEC or MCIm which bear a certain NPA-NXX designation. The Routing Point is employed to calculate mileage measurements for the distance-sensitive transport element charges of Switched Access Services. Pursuant to Bellcore Practice BR 795-100-100, the Routing Point may be an "End Office" location, or a "LEC Consortium Point of Interconnection." Pursuant to that same Bellcore Practice, examples of the latter shall be designated by a common language location identifier (CLLI) code with (x)KD in positions 9, 10, 11, where (x) may by any alphanumeric A-Z or 0-9. The above referenced Bellcore document refers to the Routing Point as the Rating Point. The Rating Point/Routing Point need not be the same as the Rate Center Point, nor must it be located within the Rate Center Area, but must be in the same LATA as the NPA-NXX..

"SECAB" means the Small Exchange Carrier Access Billing document prepared by the Billing Committee of the OBF. The Small Exchange Carrier Access Billing document, published by Bellcore as Special Report SR OPT-001856, contains the recommended guidelines for the billing of access and other connectivity services.

"SELECTIVE ROUTING" is a service which automatically routes an E911 call to the PSAP that has jurisdictional responsibility for the service address of the telephone that dialed 911, irrespective of telephone company exchange or wire center boundaries.

"SWITCH" -- See Central Office Switch

"TANDEM OFFICE SWITCHES" which are Class 4 switches which are used to connect and switch trunk circuits between and among end office switches and other tandems.

"TECHNICALLY FEASIBLE" Interconnection, access to Network Elements, collocation, and other methods of achieving interconnection or access to Network Elements at a point in the network shall be deemed technically feasible absent technical or operational concerns that prevent the fulfillment of a request by a telecommunications carrier for such interconnection, access, or methods. A determination of technical feasibility does not include consideration of economic, accounting, billing, space, or site concerns, except that space and site concerns may be considered in circumstances where there is no possibility of expanding the space available. The fact that an incumbent LEC must modify its facilities or equipment to respond to such request does not determine whether satisfying such request is technically feasible. An incumbent LEC that claims that it cannot satisfy such request because of adverse network reliability impacts must prove to the state Commission by clear and convincing evidence that such interconnection, access, or methods would result in specific and significant adverse network reliability impacts.

"TELECOMMUNICATIONS" means the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received.

"TELECOMMUNICATION SERVICES" means the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used. As used in this definition.

"THOUSANDS BLOCK OF NUMBERS" shall mean 1000 or more consecutive numbers beginning and ending on a digit boundary, e.g., 949-1000 to 949-1999.

"TRCO" means Trouble Reporting Control Office.

"VOLUNTARY FEDERAL CUSTOMER FINANCIAL ASSISTANCE PROGRAMS" are Telecommunications Services provided to low-income subscribers, pursuant to requirements established by the appropriate state regulatory body.

"WIRE CENTER"- denotes a building or space within a building which serves as an aggregation point on a given carrier's network, where transmission facilities and circuits are connected or switched. Wire center can also denote a building in which one or more central offices, used for the provision of Basic Exchange Services and access services, are located. However, for purposes of EIC service, Wire Center shall mean those points eligible for such connections as specified in the FCC Docket No. 91 - 141, and rules adopted pursuant thereto.

ATTACHMENT I

PRICE SCHEDULE

1. General Principles

   1.1 All rates provided under this Agreement are interim, subject to true-up, and shall remain in effect until the Commission determines otherwise or unless they are not in accordance with all applicable provisions of the Act, the Rules and Regulations of the FCC in effect, or the Commission's rules and regulations, in which case Part A, Section 2 shall apply.

   1.2 Except as otherwise specified in this Agreement, the Act or any Commission order, each Party shall be responsible for all costs and expenses that it incurs to comply with its obligation under this Agreement.

2. Local Service Resale

   The rates that MCIm shall pay to BellSouth for Resale shall be an amount equal to BellSouth's tariffed rates for each resold service as reduced by a percentage amount equal to the wholesale discount (set forth below in section 2.1). If BellSouth reduces such tariffed rates during the term of this Agreement, the wholesale discount shall be applied to the reduced tariffed rates.

   2.1 The following wholesale discount will apply to all Telecommunications Services available for resale in South Carolina:

Residential Service:	14.8%
Business Service:	14.8%

3. Unbundled Network Elements

   The charges that MCIm shall pay to BellSouth for Network Elements are set forth in Table 1 of this Attachment.

4. Ancillary Functions and Supporting Elements

   The interim prices for collocation, AIN and other Ancillary Functions or Supporting Elements that MCIm shall pay to BellSouth are set forth in Table 1 of this Attachment.

5. Recorded Usage Data

The prices for Recorded Usage data are set forth in Table 1 of this Attachment.

6. Inside Wire

The price of the BellSouth Inside Wire Maintenance Plan purchased by MCIm for resale shall not be reduced by the wholesale discount.

7. Interconnection and Reciprocal Compensation

7.1 Compensation for the exchange of local traffic is set forth in Table 1 of this Attachment and shall be billed based on per-minutes-of-use and shall be measured in accordance with Attachment IV.

7.2 MCIm may choose to establish trunking to any given end office when there is sufficient traffic to route calls directly to such end office. If MCIm leases one-way trunks from BellSouth, MCIm will pay the transport charges for dedicated or common transport. For two-way trunks the charges will be shared equally by both parties.

7.3 Compensation for the termination of toll traffic and the origination of 800/888 traffic between the interconnecting parties shall be baed on the applicable access charges in accordance with FCC Rules and Regulations in effect.

7.4 Where a toll call is completed through BellSouth Mississippi's INP arrangement (*e.g.*, remote call forwarding, flexible DID, etc.) to MCIm's subscriber, MCIm shall be entitled to applicable access charges in accordance with FCC Rules and Regulations.

7.5 MCIm shall pay a transit rate as set forth in Table 1 of this Attachment when MCIm uses a BellSouth access tandem to terminate a call to a third party LEC or another local service provider. BellSouth shall pay MCIm a transit rate equal to the BellSouth rate referenced above when BellSouth uses an MCIm switch to terminate a call to a third party LEC or another local service provider.

8. Interim Pricing

The interim prices referenced above shall be subject to true-up according to the following procedures:

8.1 The interim price shall be trued-up, either up or down, based on final prices determined either by further agreement between the Parties, or by a final order (including any appeals) of the Commission that meets the criteria of 8.3 below. The Parties shall implement the true-up by

comparing the actual volumes and demand for each item, together with interim prices for each item, with the final prices determined for each item. Each Party shall keep its own records upon which the true-up can be based, and any final payment from one Party to the other shall be in an amount agreed upon by the Parties based on such records. In the event of any disagreement as between the records or the Parties regarding the amount of such true-up, the Parties agree that either Party may submit the matter to the Commission pursuant to the Dispute Resolution Procedures set forth in Section 23 of Part A of this Agreement.

8.2 The Parties may continue to negotiate toward final prices, but in the event that no such agreement is reached within nine (9) months, either Party may petition the Commission to resolve such disputes and to determine final prices for each item.

8.3 A final order of this Commission that forms the basis of a true-up shall be the final order as to final prices for unbundled network elements in an appropriate generic cost study proceeding, or potentially may be a final order in any other Commission proceeding which meets the following criteria:

(i) BellSouth and MCIm are entitled to be a full party to the proceeding;

(ii) It shall apply the provisions of the federal Telecommunications Act of 1996, including but not limited to Section 252(d)(1) (which contains pricing standards) and all then-effective implementating rules and regulations; and

(iii) It shall include as an issue the geographic deaveraging of unbundled element prices, which deaveraged prices, if any, are required by said final order, shall form the basis of any true-up.

UNBUNDLED NETWORK ELEMENTS

(All rates are interim, subject to true-up based on prices developed pursuant to BellSouth cost study submission)

Network Interface Device, Per Month	$.59
Loop Combinations, including NID	
2 Wire Analog VG Loop, per mo. Non recurring	$18.00 $51.20
4 Wire Analog VG Loop, per mo. Non recurring	$28.80 $51.20
2W ADSL/HDSL Loop, per mo. Non recurring	$18.00 $51.20
4W HDSL, Loop, per mo. Non recurring	$28.80 $51.20
2 Wire ISDN Digital Grade Loop, per mo.	$28.80
NRC	$51.20
4 Wire DS1 Digital Grade Loop	$77.39
NRC, First	$300.00
NRC, Add'l	$250.00
Loop Channelization System	
Per System, per month	$400.00
NRC	$525.00
Per voice interface, per month	$1.15
NRC	$8.00
Local Switching, Per Month (Note: Local Switching rates do notinclude verticle features inherent in the unbundled local switching element. These verticle features are considered retail services that will be available at resale (discount) rates in accordance with the Commission's arbitration decision.)	
2 wire	$1.99
NRC First	$3.50
NRC Add'l	$3.50
4 wire	$2.28
NRC First	$3.50
NRC Add'l	$3.50
2 wire ISDN	$11.73
NRC First	$50.00
NRC Add'l	$50.00
2 wire DID	$12.08
NRC First	$50.00
NRC Add'l	$50.00
4 wire ISDN	$270.36
NRC First	$75.00
NRC Add'l	$75.00
4 wire DS1, with DID Capability	$130.23
NRC First	$60.00
NRC Add'l	$60.00
Hunting, per line, per month	$0.12
Hunting, per line, NRC	None
Local Switching, per MOU	
VG Per Minute of use	$.00221

Operator Systems	
Operator Call Handling, per MOU	$1.17
Call Completion Access Termination Charge, per call attempt	$.08
Automated Call Handling	
BST LIDB	$.15
Foreign LIDB	$.15
Directory Assistance, per call	$.25
DA Call Completion, per attempt	$.25
Call Completion Access Termination Charge, per completed call	$.08
Intercept, per query	$.30
Busy Line Verification, per call	$.90
Emergency Interrupt, per call	$.97
Directory Assistance	
DA Database Service	
per listing	$.035
monthly	$150.00
Direct Access to DA Service	TBD
DA transport	
switched local channel, DSI level	$133.81
NRC, first	$866.97
NRC, Add'l	$486.83
Switched dedicated DS1 level	
per mile per month	$23.50
facility termination, per month	$90.00
NRC	$100.49
DA common transport	
per DA call	$.0003
per DA call mile	$.00004
Tandem switching	
per DA call	$.00055
DA Interconnection, per DA Access Service Call	.000269
NRC, per trunk or signaling connection	
First	$915.00
Additional	$100.00
Unbundled Exchange Access IOC	
Voice Grade Analog IOC	
0-8 mi, per month, fixed	$16.89
per mile per month	$.007
9-25 mi, per month, fixed	$16.89
per mile per month	$.007
> 25 mi, per month, fixed	$18.26
per mile per month	$.0775
NRC	$10.00

Dedicated Transport		
DS1, facility termination	$59.75	
DS1, per mile	$1.60	
NRC	$100.49	
DS3, facility termination	$600.00	
DS3, per mile	$40.00	
DS3, NRC	$67.19	
Digital X-Connect		
DCS 3/3, 3/1, 1/0	TBD	
Common Transport		
Facility termination, per MOU	$.00036	
Per mile, per MOU	$.000012	
Tandem Switching	$.003172	
CCS7 Signaling Transport Services		
56 kbps Links, per month	$155.00	
CCS7 Port, per STP, per month	$355.00	
CCS7 Port, per STP, NRC	$510.00	
Signal Transfer Points		
Call Set-up message TCAP Message	$.000023 $.000050	
Signaling Usage Surrogate, per 56 kbps facility. When signaling usage measurement capability exists, CCS7 signaling usage will be billed on a per signaling message basis. When measurement capability does not exist, CCS7 signaling usage will be billed on a per 56 kbps basis.	$395.00, per month	
Signal Control Points		
LIDB, common transport, per query	$.0003	
Validation, per query	$.038	
NRC, per point code established or changed	$91.00	
Toll Free Data Base		
Per 800 call with 800 No. Del., per query	$.00115	
with optional complex features, per query	$.0012	
Per 800 call with POTS No. Del., per query	$.00115	
with optional complex features, per query	$.0012	
NRC Reservation charge, per 800 number reserved	First $5.00	Add'l. $.50
NRC Establishment charge, per 800 number established with 800 or POTS Number Delivery	First $5.00	Add'l. $1.50
Change charge, per request	First $5.00	Add'l. $.50
Customized area of service, per 800 number	First $3.00	Add'l. $1.50
Multiple interLATA carrier routing, per carrier requested, per 800 number	First $3.50	Add'l. $2.00
Call handling and destination features, per 800 number	First $3.00	Add'l. $3.00
Calling Name (CNAM) Query Service, per query	$0.016	
AIN, per signalling message.	$0.0006	

Call Transport and Termination (1)	
End Office Switching, per MOU	$.00221
Tandem Switching, per MOU	$.003172
Common Transport, per MOU	$.00036
Common Transport, per mile per MOU	$.000012
Dark Fiber	
Per each four-fiber dry fiber arrangement	
NRC - First	$1,000.00
NRC - Additional	$1,000.00
Per each fiber strand per foot, per month	$.0456
Selective Routing	
Per line or PBX trunk, one-time charge	$5.00

(1) BellSouth and MCIm agree that BellSouth will charge MCIm the rate of $0.02 as the composite rate for all elements of interconnection specified herein. This rate shall apply from April 9, 1997 through January 31, 1998 and shall not be subject to true up.

TABLE 2

RATES FOR PHYSICAL COLLOCATION
(prices are interim, subject to true-up)

RATE ELEMENT	APPLICATION/DESCRIPTION	TYPE OF CHARGE	RATE
Application Fee	Applies per arrangement per location	Nonrecurring	Tariff Rates (same as virtual)
Space Preparation Fee	Applies for survey and design of space, covers shared building modification costs	Nonrecurring	ICB - See Note 1 Will not be less than $1800 - not to exceed $8500 unless HVAC or power plant update. If so, rates to be ICB.
Space Construction Fee	Covers materials and construction of optional cage in 100 square foot increments	Nonrecurring	$4,500.00 See Note 2
Cable Installation Fee	Applies per entrance cable	Nonrecurring	Tariff Rates (Same as virtual)
Floor Space	Per square foot, for Zone A and Zone B offices, respectively	Monthly Recurring	$7.50/$6.75
Power	Per ampere based on manufacturer's specifications	Monthly Recurring	$5.14 per ampere
Cable Support Structure	Applies per entrance cable	Monthly Recurring	$13.35 per cable
POT Bay	Optional Point of Termination bay; rate is per DS1/DS3 cross-connect, respectively	Monthly Recurring	$1.20/$5.00 See Note 3
Cross-Connects	Per DS1/DS3, respectively	Monthly Recurring	$8.00/$72.48
Security Escort	First and additional half hour increments, per tariff rate in Basic time (B), Overtime (O), and Premium time (P)	As Required	$41.00/25.00 B $48.00/$30.00 O $55.00/$35.00 P

Note 1: Will be determined at the time of the application based on building and space modification requirements for share space at the requested CO

Note 2: Applies only to collocators who wish to purchase a steel gauge cage enclosure.

Note 3: Applies when collocator does not supply their own POT bay.

RATES FOR VIRTUAL COLLOCATION

Rates, terms, and conditions as set forth in Section 20 of BellSouth Telecommunications, Inc.'s Interstate Access Tariff, FCC No. 1.

TABLE 3

RIGHTS OF WAY

BellSouth shall provide access to rights-of-way at rates that are consistent with 47 U.S.C. Section 224(d). MCIm may file a complaint with the appropriate authority if it believes the rates provided by BellSouth are not consistent with 47 U.S.C. Section 224(d).

TABLE 4

POLE ATTACHMENTS, CONDUIT AND DUCT OCCUPANCY

BellSouth shall provide access to poles, conduits and ducts at rates that are consistent with 47 U.S.C. Section 224(d). MCIm may file a compliant with the appropriate regulatory authority if it believes the rates provided by BellSouth are not consistent with 47 U.S.C. Section 224(d). Following are interim rates for occupancy:

Poles, per attachment, per year	$4.20
Conduits, per foot, per year	$ .56
Work performed by BellSouth Employees	Labor rate developed in accordance with FCC Accounting rules for work performed by BellSouth Employees.

TABLE 5

INTERIM NUMBER PORTABILITY

Remote Call Forwarding (RCF)

-Business line, per number ported, 10 paths	$1.50	
-Residence Line, per number ported, 6 paths		$1.25
-Additional capacity for simultaneous call forwarding, per additional path	$.50	
-Rate per order, per end-user location	$25.00	

For LERG Reassignment, Route Index-Portability Hub, and Directory Number-Route Index, the Parties agree to continue to work on interim rates that shall also be subject to true-up according to permanent rates for number portability to be established by the South Carolina Public Service Commission.

TABLE 6

RECORDED USAGE DATA
(Interim Rates subject to True-up)

Recording Services (only applied to unbundled operator services messages), per message	$.008
Message Distribution, per message	$.004
Data Transmission, per message	$.001

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Attachment II
LOCAL RESALE

ATTACHMENT II

LOCAL RESALE

Section 1. Telecommunications Services Provided for Resale

1.1 At the request of MCIm, and pursuant to the requirements of the Act, PSCSC rulings, and FCC Rules and Regulations in effect, BellSouth shall make available to MCIm for resale any Telecommunications Service that BellSouth currently provides or may offer hereafter. BellSouth shall also provide Service Functions, as set forth in this Attachment II. The Telecommunications Services and Service Functions provided by BellSouth to MCIm pursuant to this Agreement are collectively referred to as "Local Resale."

1.2 To the extent that this Attachment describes services which BellSouth shall make available to MCIm for resale pursuant to this Agreement, this list of services is neither all inclusive nor exclusive. All Telecommunications Services of BellSouth which are to be offered for resale are subject to the terms herein, even though they are not specifically enumerated or described.

1.3 **Features and Functions Subject to Resale.** BellSouth agrees to make available for resale all features and functions available in connection with Telecommunications Services, including but not limited to the following:

Dial tone and ring
Capability for either dial pulse or touch tone recognition
Capability to complete calls to any location
Same extended local calling area
1+ IntraLATA toll calling
PIC 1+ service
CIC dialing (10XXX)
Same access to vertical features and functions

1.4 BellSouth will provide MCIm with at least the capability to provide an MCIm subscriber with the same level of service quality as BellSouth provides its own subscribers with respect to all Telecommunications Services and shall provide such capability in accordance with the relevant requirements of Attachment VIII.

1.5 The specific business process requirements and systems interface requirements are set forth in Attachment VIII.

Section 2. General Terms and Conditions for Resale

2.1 **Pricing.** The prices charged to MCIm for Local Resale are set forth in Attachment I of this Agreement. The resale discount shall apply to non-recurring rates of services available for resale.

2.2 **Services Available for Resale.** MCIm may resell to any and all classes of end-users Telecommunications Services obtained from BellSouth under this Agreement, except for Lifeline Assistance and Link-Up or similar services, and Grandfathered services, which MCIm may only resell to those subscribers who are eligible to obtain such services from BellSouth. BellSouth will not prohibit, nor impose unreasonable or discriminatory conditions or limitations on the resale of its Telecommunications Service.

2.2.1 BellSouth agrees to remove all tariff restrictions regarding resale that are inconsistent with the orders of the PSCSC pertaining to resale.

2.2.2 **Restrictions on Resale** With the exception of short-term promotions and CSA's (defined below), Lifeline and Link-up, BellSouth shall offer for resale at wholesale prices all Telecommunications Services that BellSouth provides at retail to non-telecommunications carriers.

No terms and conditions, including use and user restrictions, shall be applicable to the resale of BellSouth's services except for:

2.2.2.1 A restriction on the resale of cross-class selling

2.2.2.2 Resale of BellSouth's retail services shall be subject to the terms and conditions contained in BellSouth's tariffs existing on the Effective Date. MCIm may challenge any terms and conditions which it contends are unreasonable or discriminatory.

2.2.2.3 Long term promotions, defined as those promotions that are offered for more than 90 days, shall be available for resale to the subscribers who would have qualified for the promotional rate if the service were being offered by BellSouth;

2.2.2.4 Lifeline service shall be available for resale by MCIm only to those subscribers who meet the qualifications set forth in the applicable State and Federal Regulations.

2.2.2.5 Link-up service shall be available for resale by MCIm only to those subscribers who meet the qualifications set forth in the applicable State and Federal Regulations.

2.2.2.6 Grandfathered services are available for resale by MCIm only to those subscribers who already have grandfathered status or who may obtain such services from BellSouth. Grandfathered services may not be resold to a new or different group of subscribers that is not eligible to obtain such services from BellSouth.

2.2.2.7 Left Blank Intentionally

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2.3 Requirements for Specific Services

2.3.1 MULTISERV® Requirements

2.3.1.1 At MCIm's option, MCIm may purchase MULTISERV® services. Where MCIm purchases such MULTISERV services, MCIm may purchase the entire set of features, any single feature or any combination of features which BellSouth has the capability to provide. BellSouth will provide MCIm with the same service levels and features of MULTISERV Service provided by BellSouth to its subscribers. Requests by MCIm for MULTISERV Service and features that are different from what BellSouth provides to its subscribers will be handled under the

Bona Fide Request Process. The MULTISERV service provided for resale will meet the following requirements;

2.3.1.2 All features and functions of MULTISERV Service, including MULTISERV Management System (CMS), whether offered under tariff or otherwise, shall be available to MCIm for resale, without any geographic or subscriber class restrictions.

2.3.1.3 BellSouth shall make CMS information available to MCIm at the End Office level via an electronic interface as specified in Attachment VIII.

2.3.1.4 BellSouth shall provide to MCIm access to information by central office via an electronic interface, relating to all current MULTISERV® or MULTISERV-like features and functions offered by BellSouth within ten (10) days of the Effective Date of this Agreement. MCIm can obtain updates to information relating to MULTISERV features and functions as required.

2.3.1.5 All service levels and features of MULTISERV Service provided by BellSouth for resale by MCIm shall meet the service requirements set forth in Attachment VIII.

2.3.1.6 MCIm may aggregate the MULTISERV local exchange and IntraLATA traffic usage of MCIm subscribers to qualify for volume discounts on the basis of such aggregated usage.

2.3.1.7 MCIm may aggregate multiple MCIm subscribers on dedicated access facilities. MCIm may require BellSouth to suppress the need for MCIm subscribers to dial "9" when placing calls outside the MULTISERV System. When dedicated facilities are utilized, BellSouth will provide, upon MCIm's request, station ID or ANI as well as FGD trunking.

2.3.1.8 MCIm may use remote call forwarding, or any other method mutually agreed upon, in conjunction with MULTISERV Service to provide service to MCIm local service subscribers residing outside of the geographic territory in which BellSouth provides local exchange service.

2.3.1.9 MCIm may purchase any and all levels of MULTISERV Service for resale, without restriction on the maximum number of lines that may be purchased for any one level of service. Where minimum number of line restrictions apply, MCIm may

aggregate subscribers to satisfy such restrictions. MCIm shall be permitted to resell MULTISERV to multiple and different subscribers of MCIm for purposes of aggregation; provided, however, that the lines must be aggregated with the MCIm-defined common block.

2.3.1.10 BellSouth shall make available to MCIm for resale intercom calling, at the appropriate discount set forth in Attachment I, among all MCIm subscribers within the same MULTISERV system who utilize resold MULTISERV Service. To the extent that BellSouth offers its own subscribers intercom calling between different MULTISERV systems, BellSouth shall make such calling available to MCIm for resale upon the same terms and conditions at the appropriate discount set forth in Attachment I.

2.3.1.11 MCIm may utilize BellSouth's Automatic Route Selection (ARS) service features to provision and route calls from various end users to various Interexchange Carriers (IXC) Networks.

2.3.1.12 BellSouth's MULTISERV Service may be used by MCIm to provide Local Service as defined by BellSouth to MCIm's subscribers.

2.3.2 **Voluntary Federal and State Subscriber Financial Assistance Programs**

Local Resale is provided to low-income subscribers, pursuant to requirements established by the appropriate state regulatory body, include programs such as Voluntary Federal Subscriber Financial Assistance Program and Link-Up America. When a BellSouth subscriber eligible for the Voluntary Federal Subscriber Financial Assistance Program or other similar state programs chooses to obtain Local Resale from MCIm, BellSouth shall forward all available information regarding such subscriber's eligibility to participate in such programs to MCIm in accordance with procedures to be mutually established by the parties and applicable state and federal law.

2.3.3 *Lifeline/Link-Up Service.* BellSouth shall offer for resale Lifeline and Link-Up Service. BellSouth will provide information about the certification process for the provisioning of Lifeline, Link-up, and similar services. MCIm shall discount the Lifeline and Link-Up services by at least the same percentage as now provided by BellSouth. MCIm shall

comply with all aspects of the FCC's and South Carolina PSC's Orders which implement Lifeline and Link-Up programs.

2.3.3.1 BellSouth will forward to MCIm, in electronic format, all information regarding a subscriber's program eligibility, status and certification when a BellSouth subscriber currently on any BellSouth telephone assistance program changes service to MCIm as their local exchange carrier. BellSouth will cooperate in obtaining any subsidy associated with a subscriber transfer to MCIm.

2.3.4 Grandfathered Services. BellSouth shall offer for resale to MCIm all grandfathered services. For purposes of this Agreement, a grandfathered service is a service that BellSouth offers to existing retail subscribers but not to new or different subscribers. MCIm shall have the right to review any BellSouth request for the termination of service and/or its grandfathering filed with the Commission.

2.3.5 **N11 Service**

2.3.5.1 BellSouth shall make available for resale any new N11 services after the Effective Date of this Agreement .

2.3.5.2 MCIm shall have the right to resell any N11 service, including but not limited to 911 or E911 services, existing as of the Effective Date.

2.3.6 ***Customer Specific Offerings including Contract Service Arrangements and Other Customer Specific Offerings ("CSAs").*** CSA's shall be available for resale, at the same rates, terms and conditions offered to BellSouth's end users, and in accordance with State and FCC Rules and Regulations. CSAs shall be made available for resale at the lower of the price of the CSA in question or the retail price of the services provided under the CSA less the wholesale discount.

2.3.6.1 For purposes of this Agreement, a BellSouth promotion will be considered "short-term" if: the promotion is offered to subscribers for a period of 90 days or less, and is not used to evade the wholesale rate obligation to MCIm, for example, by offering a sequential series of 90 - day or less promotional rates to BellSouth subscribers.

2.3.6.2 Short term promotions shall be made available by BellSouth to MCIm for resale at the lower of the promotional

rate without the wholesale discount or the retail rate less the wholesale discount. BellSouth shall make all other promotions available to MCIm at the promotional rate reduced by the wholesale discount rate.

2.3.6.3 MCIm shall offer a promotion obtained from BellSouth to customers who would qualify for the promotion if they received it directly from BellSouth; however, MCIm shall otherwise remain free to package and price the resold promotion, other than a short term promotion as defined above, without restriction. A BellSouth promotion for a particular service shall not limit MCIm's ability to obtain that service at the normal rate less the wholesale discount and resell it without regard to subscribers' eligibility for the promotion.

2.3.6.4 Special Arrangements shall be available for resale, at the same terms and conditions offered to BellSouth's end users, and in accordance with State and FCC Rules and Regulations. Special Arrangements shall be made available for resale at the price of the Special Arrangement less the wholesale discount.

2.3.7 **Discount Plans and Services.** BellSouth shall offer for resale all tariffed Discount Plans and Services in accordance with State and FCC Rules and Regulations. Discount plans and services shall be made available at the tariffed rate less the wholesale discount.

2.3.8 **Inside Wire Maintenance Service.** BellSouth shall offer for resale inside wire maintenance service at the rates set forth in Attachment I.

2.3.9 Pay Phone Service

BellSouth shall make available to MCIm for resale, at charges set forth in Attachment I, all payphone local services, features and functionalities that it provides to its own pay phone operations or to independent pay phone owners. At a minimum the following Pay Phone Services shall be included: Coin Line (currently sold as SmartLine), COCOT Line Coin (currently sold as Independent Payphone Provider (IPP) Line), and COCOT Line Coinless (currently sold as IPP Line Coinless). BellSouth should provide the services and features listed below at the same level and standards as BellSouth provides for its own or an affiliate's pay phone operations. The following features are currently available with these pay phone services and shall be available to MCIm:

Pay Phone Service

- Billed Number Screening
- Originating line screening
- Ability to "freeze" PIC selection
- One bill per line
- Point of demarcation at the Network Interface location
- Detailed billing showing all 1+ traffic in EMR format and transferred to MCIm via NDM or whatever industry standard may be developed..
- Wire Maintenance option
- Touchtone service
- Option for listed or non-listed numbers
- Access to 911 service
- One directory per line
- Access to ANI information
  Line and/or station monitoring and diagnostic routines.

The following features shall be made available to MCIm when BellSouth provides them to its own pay phone operations or to independent pay phone owners:

- Option to block all 1+ calls to international destinations.
- IntraLATA Call Timing
- Option of one-way or two-way service on line
- Originating line screening
- MCIm rate tables for local and intraLATA service
- Flat rate service based on rate groups
- MCIm resale line incoming/outgoing screening
- Blocking for 1+900, N11, 976, 7 digit local
- Option to block all 1+700 and 1+500 calls
- Line side supervision option
- Ability to keep existing serving telephone numbers if cutover to MCIm
- Far end disconnect recognition
- Call timing
- Same call restrictions as available on BellSouth phones for interLATA, international, intraLATA, and local calling
- Option to have enclosure installed with set
- Install the station to at least BellSouth standards
- Station or enclosure equipment should only bear the name/brand designated by MCIm on the order form
- Provide option for use of "bright station technology including debit cards
- Provide revenue, maintenance, collection reports as specified by MCIm on order form on a periodic basis in paper or electronic formation
- Blocking of inbound international toll calls
- Point of demarcation at the set location
- Provide service restoration per MCIm's Performance standards

- Service outage transfers to MCIm help center
- Single point of Contact for bills and orders dedicated to Pub
- Access to MCIm Directory Assistance
- Access to MCIm's Network Access Interrupt
- Use MCIm branded invoice
- Provide all information requested to ensure MCIm can bill for access line
- Provide all information requested to ensure MCIm can bill for usage on the line
- All calls originating from stations serviced by these lines should be routed to MCI long distance lines
- Provide the same monitoring and diagnostic routines on the line as BellSouth would on its own facilities
- Ordering per Performance Standards ordered by the Commission or agreed to by the parties
- Call Transfer per Performance Standards ordered by the Commission or agreed to by the parties
- Billing per Performance Standards ordered by the Commission or agreed to by the parties
- PIC per Performance Standards ordered by the Commission or agreed to by the parties

In addition to the above, the following are specifically for coin lines:

- Access to all CO intelligence required to perform answer detection, coin collection, coin return, and disconnect*
- Option of measured service
- Ability to block any 1+ service that cannot be rated by the coin circuits/TSPS/OSPS*
- Option to have BellSouth technicians collect, count, and deposit vault contents on behalf of MCIm
- Monitor vault contents for slugs and spurious non US currency or theft and notify MCIm of discrepancies

2.3.9.1 BellSouth shall offer for resale at a minimum, the following Coin Line features with its resold Coin Line service:

Access to all CO intelligence required to perform answer detection, coin collection, coin return, and disconnect
Answer Detection
Option to block all 1+ calls to international destinations
IntraLATA Call Timing
Option of one-way or two-way service on line
Coin Refund and Repair Referral Service

The following features shall be made available to MCIm when BellSouth provides them to its own pay phone operations or to independent pay phone owners:

Flat Rate Service
Originating line screening
MCIm rate tables for local and intraLATA service
BellSouth Central Office Intelligence for rating and other functions
Option of measured service
Ability to block any 1+ service that cannot be rated by the coin circuits/ TSPS/OSPS
Protect against clip on fraud
Protect against blue box fraud

2.3.9.2 BellSouth shall offer for resale, at a minimum, the following features with its COCOT Line Coin and COCOT Line Coinless services:

Flat rate or measured rate whichever is offered to BellSouth's IPP Customers
Ability to keep existing service telephone numbers if cutover to MCIm Resale Line

The following features shall be made available to MCIm when BellSouth provides them to its own pay phone operations or to independent pay phone owners:

Originating line screening
Two-way service option
Flat rate service based on rate groups
Option of one-way service on the line
Option of measured service
Ability to keep existing serving telephone numbers if cutover to MCIm resale line incoming/outgoing screening
Provision of Information Digit 29
Provision of International Toll Denial Recognition Tone

2.3.9.3 BellSouth shall offer for resale, at a minimum, the features with its following COCOT Line Coin service:

Blocking for 1+ international, 10XXXX1 + international, 101XXXX1 + international, 1+900, N111, 976

The following features shall be made available to MCIm when BellSouth provides them to its own pay phone operations or to independent pay phone owners:

Option to block all 1-700 and 1-500 calls
Line side supervision option

2.3.9.4 BellSouth shall offer for resale, at a minimum, the following features with its COCOT Line Coinless-service:

Blocking for 1 + international, 10XXXX1 + international, 101XXXX1 + International, 1+900, N11, 976, 7 or 10 digit local, 1 + DDD

2.3.9.5 BellSouth shall offer for resale, at a minimum, the following features with its SemiPublic Coin service:

Ability to keep existing serving telephone numbers if cutover to MCIm
Touch-tone Service
Option for listed, nonlisted, or non published numbers
Provision 911 service
Access to ANI information
Access to all CO intelligence required to perform answer supervision, coin collect, coin return and disconnect
Ability to keep existing serving telephone numbers if cutover to MCIm required to perform answer supervision, collect and refund
Far end disconnect recognition
Call timing
PIC protection for all 1+ local, interLATA, and intraLATA traffic
Same call restrictions as available on BellSouth phones for interLATA, international, intraLATA, and local calling
One bill per line
Detailed billing showing all 1+ traffic in paper or electronic format
Option to have enclosure installed with set
One directory per line installed
Install the station to at least BellSouth standards
Ability to block any 1+ service that cannot be rated by the coin circuits

The following features shall be made available to MCIm when BellSouth provides them to its own pay phone operations or to independent pay phone owners:

Option to block all 1+ international calls
Option of one-way or two-way service
Wire Maintenance option
Ability to block any 1+ service that cannot be rated by the coin circuits/ TSPS/OSPS
Use of MCIm rate tables for local and intraLATA service
Option to have BellSouth technicians collect, count, and deposit vault contents on behalf of MCIm
Monitor vault contents for slugs and spurious non US currency or theft and notify MCIm of discrepancies
Station or enclosure equipment should only bear the name/brand designated by MCIm on the order form
Protect against clip on fraud
Protect against red box fraud
Protect against blue box fraud
Provide option for use of "bright" station technology including debit cards
Provide revenue, maintenance, collection reports as specified by MCIm on order form on a periodic basis in paper or electronic format
Blocking of inbound international calls
Point of demarcation at the set location
Provide service restoration per MCIm's Performance Standards
Service outage transfers to MCIm help center
Special screen codes unique to MCIm and/or its subscribers
Single point of Contact for bills and orders dedicated to Public
Access to MCIm Directory Assistance
Access to MCIm's Network Access Interrupt
Access to ANI Information
Provide all information requested to ensure MCIm can bill for access line
Provide all information requested to ensure MCIm can bill for usage on the line
All calls originating from stations serviced by these lines should be routed to MCIm lines, except where designated
Provide the same monitoring and diagnostic routines on the line as BellSouth would on its own facilities
Provide installation intervals per MCIm Performance Standards
Ordering per MCIm Performance Standards
Call Transfer per MCIm Performance Standards
Billing per MCIm Performance Standards
PIC per MCIm Performance Standards

2.3.10 **Voice Mail Service**

2.3.10.1 MCIm shall have the right to resell BellSouth Voice Mail services.

2.3.10.2 Where available to BellSouth's end users, BellSouth shall provide the following features and capabilities to allow for voice mail services:

SMDI-E (Station Message Desk Interface-Enhanced)
SMDI, Station Message Desk Interface
Message Waiting Indicator ("MWI") stutter dialtone and message waiting light feature capabilities
CF-B/DA (Call Forward on Busy/Don't Answer)
CF/B (Call Forward on Busy)
CF/DA (Call Forward Don't Answer)

2.3.11 **Hospitality Service**

2.3.11.1 BellSouth shall provide all blocking, screening, and all other applicable functions available for hospitality lines.

2.3.12 **Telephone Line Number Calling Cards.** Effective thirty (30) days after the date of an end-user's subscription to MCIm service or within 24 hours after MCIm has notified BellSouth that it has replaced the subscriber's calling card, whichever is earlier, BellSouth will terminate its existing telephone line number-based calling cards and remove any BellSouth-assigned Telephone Line Calling Card Number (including area code) ("TLN") from the LIDB. MCIm may issue a new telephone calling card to such subscriber, utilizing the same TLN, and MCIm shall have the right to enter such TLN in LIDB for calling card validation purposes via the service order process. BellSouth will direct-bill each subscriber on the subscriber's final bill. BellSouth will coordinate the disconnection of subscriber's calling cards with MCIm to ensure that there is no time that a subscriber is without a calling card.

Section 3. Advanced Intelligent Network

3.1.1 MCIm may purchase at the discount set forth in Attachment I any Advanced Intelligent Network (AIN") Telecommunications Services which BellSouth offers at retail, for resale to subscribers who are not carriers.

Section 4. Service Functions

4.1 BellSouth shall provide MCIm with the information MCIm will need to certify subscribers as exempt from charges (including taxes), or eligible for reduced charges associated with providing services, including but not limited to handicapped individuals, and certain governmental bodies and public institutions and shall not bill MCIm for such services.

4.2 BellSouth shall provide MCIm with appropriate notification of all area transfers with line level detail one hundred twenty (120) days before service transfer, and will also notify MCIm within one hundred twenty (120) days before such change of any LATA boundary changes or within the timeframe required by an approving regulatory body, if any.

4.3 BellSouth will work cooperatively with MCIm in practices and procedures regarding the handling of law enforcement and service annoyance calls.

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NETWORK ELEMENTS

ATTACHMENT III

NETWORK ELEMENTS

Section 1. Introduction

BellSouth shall provide unbundled Network Elements in accordance with this Agreement, FCC Rules and Regulations. The price for each Network Element is set forth in Attachment I of this Agreement. Except as otherwise set forth in this Attachment, MCIm may order Network Elements as of the Effective Date.

Section 2. Unbundled Network Elements

2.1 BellSouth shall offer Network Elements to MCIm on an unbundled basis on rates, terms and conditions that are just, reasonable, and non-discriminatory in accordance with the terms and conditions of this Agreement.

2.2 BellSouth shall permit MCIm to connect MCIm's facilities or facilities provided to MCIm by third parties with each of BellSouth's unbundled Network Elements at any point designated by MCIm that is Technically Feasible.

2.3 MCIm may use one or more Network Elements to provide any feature, function, capability, or service option that such Network Element(s) is capable of providing or any feature, function, capability, or service option that is described in the technical references identified herein. The Services and Elements provided pursuant to this Agreement may be connected to other Services and Elements provided by BellSouth or to any Services and Elements provided by MCIm itself or by any other vendor. MCIm may purchase unbundled Network Elements for the purpose of combining Network Elements, whether those elements are its own or are purchased from BellSouth, in any manner that it chooses to provide service. If Network Elements are rebundled to produce an existing tariffed retail service, the appropriate price to be charged to MCIm by BellSouth is the wholesale price (discounted retail price).

2.3.1 MCIm may, at its option, designate any Technically Feasible method of access to unbundled elements, including access methods currently or previously in use.

2.4 Subject to Section 2.3, BellSouth shall offer each Network Element individually and in combination with any other Network Element or Network

Elements in order to permit MCIm to provide Telecommunications Services to its subscribers.

2.5 For each Network Element, BellSouth shall provide a demarcation point (e.g., at a Digital Signal Cross Connect, Light Guide Cross Connect panel or a Main Distribution Frame) and, if necessary, access to such demarcation point, which MCIm agrees is suitable. However, where BellSouth provides combined Network Elements at MCIm's direction, no demarcation point shall exist between such contiguous Network Elements.

2.6 With respect to Network Elements and services in existence as of the Effective Date of this Agreement, charges in Attachment I are inclusive and no other charges apply, including but not limited to any other consideration for connecting any Network Element(s) with other Network Element(s). BellSouth and MCIm agree to attempt in good faith to resolve any alleged errors or omissions in Attachment I.

2.7 This Attachment describes the initial set of Network Elements which MCIm and BellSouth have identified as of the effective date of this agreement:

Loop
Network Interface Device
Distribution (Subject to BFR process in Part A of this Agreement)
Local Switching
Operator Systems
Common Transport
Dedicated Transport
Signaling Link Transport
Signaling Transfer Points
Service Control Points/Databases
Tandem Switching
911
Directory Assistance
Dark Fiber
Loop Concentrator/Multiplexer (Subject to BFR process in Part A of this Agreement)
AIN

2.8 MCIm and BellSouth agree that the Network Elements identified in this Attachment are not all possible Network Elements.

2.9 MCIm may identify additional or revised Network Elements as necessary to provide telecommunications services to its subscribers, to improve network

or service efficiencies or to accommodate changing technologies, subscriber demand, or other requirements.

MCIm will request such Network Elements in accordance with the bona fide request process described in Section 24 of Part A. Additionally, if BellSouth provides any Network Element that is not identified in this Agreement, to itself, to its own subscribers, to a BellSouth Affiliate or to any other entity, BellSouth shall make available the same Network Element to MCIm on terms and conditions no less favorable to MCIm than those provided to itself or to any other party, at charges set forth in Attachment I.

Section 3. Standards for Network Elements

3.1 Each Network Element shall be furnished at a service level equal to or better than the requirements set forth in the technical references referenced in the following, as well as any performance or other requirements, identified herein. In the event Bell Communications Research, Inc. ("Bellcore"), or industry standard (e.g., American National Standards Institute ("ANSI") technical reference or a more recent version of such reference sets forth a different requirement, MCIm may elect, where Technically Feasible, that such standard shall apply.

3.2 If one or more of the requirements set forth in this Agreement with respect to BellSouth's obligations to MCI are in conflict, MCIm shall elect which requirement shall apply.

3.3 Each Network Element provided by BellSouth to MCIm shall be at least equal in the quality of design, performance, features, functions, capabilities and other characteristics, including but not limited to levels and types of redundant equipment and facilities for power, diversity and security, that BellSouth provides to itself, BellSouth's own subscribers, to a BellSouth Affiliate or to any other entity.

3.3.1 BellSouth shall provide to MCIm, upon request, engineering, design, performance and other network data sufficient for MCIm to determine that the requirements of this Section 3 are being met. In the event that such data indicates that the requirements of this Section 3 are not being met, BellSouth shall, within ten (10) days, cure any design, performance or other deficiency, or, if the failure is not susceptible to cure within ten (10) days shall commence and continue its best efforts to correct such failure as soon as possible, and provide new data sufficient for MCIm to determine that such deficiencies have been cured.

3.3.2 BellSouth agrees to work cooperatively with MCIm to provide

Network Elements that will meet MCIm's needs in providing services to its subscribers.

3.4 Unless otherwise requested by MCIm, each Network Element and the connections between Network Elements provided by BellSouth to MCIm shall be made available to MCIm on a priority basis, at any Technically Feasible point, that is equal to or better than the priorities that BellSouth provides to itself, BellSouth's own BellSouth subscribers, to a BellSouth Affiliate or to any other entity.

Section 4. Loop

4.1 **Definition**

4.1.1 A loop is a transmission facility between a distribution frame [cross-connect], or its equivalent, in a BellSouth central office or wire center, and the network interface device at a subscriber's premises, to which MCIm's granted exclusive use. This includes, but is not limited to two-wire and four-wire analog voice-grade loops, and two-wire and four-wire loops that are conditioned to transmit the digital signals needed to provide ISDN, ADSL, HDSL, and DS1-level signals. A loop may be composed of the following components:

Loop Concentrator / Multiplexer
Loop Feeder
Network Interface Device (NID)
Distribution

4.1.2 If BellSouth uses Integrated Digital Loop Carrier (IDLCs) systems to provide the local loop, BellSouth will make alternate arrangements, equal in quality, to permit MCIm to order a contiguous unbundled local loop at no additional cost to MCIm except where the absence of existing facilities necessitates special construction.

4.2. **Technical Requirements**

Subdivided to each component as detailed below.

4.3 **Interface Requirements**

Subdivided to each component as detailed below.

4.4 **Loop Components**

4.4.1 **Loop Concentrator/Multiplexer**

4.4.1.1 **Definition:**

4.4.1.1.1 The Loop Concentrator/Multiplexer is the Network Element that:(1) aggregates lower bit rate or bandwidth signals to higher bit rate or bandwidth signals (multiplexing); (2) disaggregates higher bit rate or bandwidth signals to lower bit rate or bandwidth signals (demultiplexing); (3) aggregates a specified number of signals or channels to fewer channels (concentrating); (4) performs signal conversion, including encoding of signals (e.g., analog to digital and digital to analog signal conversion); and (5) in some instances performs electrical to optical (E/O) conversion. Any request by MCIm for unbundling the Loop Concentrator/Multiplexer will be made pursuant to the Bona Fide Request Process identified in Part A of this Agreement.

4.4.1.1.2 The Loop Concentrator/Multiplexer function may be provided through a Digital Loop Carrier (DLC) system, channel bank, multiplexer or other equipment at which traffic is encoded and decoded, multiplexed and demultiplexed, or concentrated.

4.4.1.2 **Technical Requirements**

4.4.1.2.1 The Loop Concentrator/Multiplexer shall be capable of performing its functions on the signals for the following services, including but not limited to, (as needed by MCIm to provide end-to-end service capability to its subscriber):

4.4.1.2.1.1 two-wire & four-wire analog voice grade loops;

4.4.1.2.1.2 two-wire & four-wire loops that are conditioned to transmit the digital signals needed to provide services such as ISDN, ADSL, HDSL, and DS1-level signals.

4.4.1.2.1.3 4-wire digital data (2.4Kbps through 64Kbps and n times 64Kbps (where $n \leq 24$);

4.4.1.2.1.4 DS3 rate private lines;

4.4.1.2.1.5 Optical SONET rate private lines;

4.4.1.2.2 The Loop Concentrator/Multiplexer shall perform the following functions as appropriate:

4.4.1.2.2.1 Analog to digital signal conversion of both incoming and outgoing (upstream and downstream) analog signals;

4.4.1.2.2.2 Multiplexing of the individual digital signals up to higher transmission bit rate signals (e.g., DS0, DS1, DS3, or optical SONET rates) for transport to the BellSouth central office through the Loop Feeder; and

4.4.1.2.2.3 Concentration of end-user subscriber signals onto fewer channels of a Loop Feeder (The concentration ratio shall be as specified by MCIm).

4.4.1.2.3 BellSouth shall provide power for the Loop Concentrator /Multiplexer, through a non-interruptible source if the function is performed in a central office, or from a commercial AC power source with battery backup if the equipment is located outside a central office. Such power shall also adhere to the requirements stated herein.

4.4.1.2.4 The Loop Concentrator/Multiplexer shall be provided to MCIm in accordance with the following Technical References:

4.4.1.2.4.1 Bellcore TR-NWT-000057, Functional Criteria for Digital Loop Carrier Systems, Issue 2, January 1993.

4.4.1.2.4.2 Bellcore TR-NWT-000393, Generic Requirements for ISDN Basic Access Digital Subscriber Lines.

4.4.1.2.4.3 ANSI T1.106 - 1988, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (Single Mode).

4.4.1.2.4.4 ANSI T1.105-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats.

4.4.1.2.4.5 ANSI T1.102-1993, American National Standard for Telecommunications - Digital Hierarchy - Electrical Interfaces.

4.4.1.2.4.6 ANSI T1.403-1989, American National Standard for Telecommunications - Carrier to Subscriber Installation, DS1 Metallic Interface Specification.

4.4.1.2.4.7 Bellcore GR-253-CORE, Synchronous Optical Network Systems (SONET), Common Generic Criteria..

4.4.1.2.4.8 Bellcore TR-TSY-000008, Digital Interface Between the SLC 96 Digital Loop Carrier System and a Local Digital Switch, Issue 2, August 1987.

4.4.1.2.4.9 Bellcore TR-NWT-000303, Integrated Digital Loop Carrier System Generic Requirements, Objectives and Interface, Issue 2, December 1992; Rev. 1, December 1993; Supplement 1, December 1993.

4.4.1.2.4.10 Bellcore TR-TSY-000673, Operations Systems Interface for an IDLC System, (LSSGR) FSD 20-02-2100, Issue 1, September 1989.

4.4.1.2.4.11 Bellcore Integrated Digital Loop Carrier System Generic Requirements, Objectives and Interface, GR-303-CORE, Issue 1, September 1995.

4.4.1.3 **Requirements for an Intelligent Loop Concentrator/ Multiplexer**

4.4.1.3.1 In addition to the basic functions described above for the Loop Concentrator/Multiplexer, the Intelligent Loop Concentrator/Multiplexer (IC/M) shall

provide facility grooming, facility test functions, format conversion and signaling conversion as appropriate.

4.4.1.3.2 The underlying equipment that provides such IC/M function shall continuously monitor protected circuit packs and redundant common equipment.

4.4.1.3.3 The underlying equipment that provides such IC/M function shall automatically switch to a protection circuit pack on detection of a failure or degradation of normal operation.

4.4.1.3.4 The underlying equipment that provides such IC/M function shall be equipped with a redundant power supply or a battery back-up.

4.4.1.3.5 At MCIm's option, BellSouth shall provide MCIm with real time performance monitoring and alarm data on IC/M elements that may affect MCIm's traffic. This includes IC/M hardware alarm data and facility alarm data on the underlying device that provides such IC/M function.

4.4.1.3.6 At MCIm's option, BellSouth shall provide MCIm with real time ability to initiate tests on the underlying device that provides such IC/M function integrated test equipment as well as other integrated functionality for routine testing and fault isolation.

4.4.1.4 **Interface Requirements**

4.4.1.4.1 The Loop Concentrator/Multiplexer shall meet the following interface requirements, as appropriate for the configuration that MCIm designates:

4.4.1.4.2 The Loop Concentrator/Multiplexer shall provide an analog voice frequency copper twisted pair interface at the serving wire center, as described in the references in Section 4.4.1.2.4.

4.4.1.4.3 The Loop Concentrator/Multiplexer shall provide digital 4-wire electrical interfaces at the serving wire center, as described in the references in Section 4.4.1.2.4.

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4.4.1.4.4 The Loop Concentrator/Multiplexer shall provide optical SONET interfaces at rates of OC-3, OC-12, OC-48, and OC-N, N as described in the references in Section 4.4.1.2.4.

4.4.1.4.5 The Loop Concentrator/Multiplexer shall provide the Bellcore TR-303 DS1 level interface at the serving wire center. Loop Concentrator/ Multiplexer shall provide Bellcore TR-08 modes 1&2 DS1 interfaces when designated by MCIm. Such interface requirements are specified in the references in Section 4.4.1.2.4.

4.4.1.5 The Intelligent Loop Concentrator/Multiplexer shall be provided to MCIm in accordance with the Technical References set forth in Sections 4.4.1.2.4.8 through 4.4.1.2.4.11 above.

4.4.2 Loop Feeder

4.4.2.1 **Definition:**

4.4.2.1.1 The Loop Feeder provides connectivity between (1) a Feeder Distribution Interface (FDI) associated with Loop Distribution and a termination point appropriate for the media in a central office, or (2) a Loop Concentrator/Multiplexer provided in a remote terminal and a termination point appropriate for the media in a central office. BellSouth shall provide MCIm physical access to the FDI, and the right to connect, the Loop Feeder to the FDI.

4.4.2.1.2 The physical medium of the Loop Feeder may be copper twisted pair, or single or multi-mode fiber or other technologies as designated by MCIm. In certain cases, MCIm will require a copper twisted pair loop even in instances where the medium of the Loop Feeder for services that BellSouth offers is other than a copper facility.

4.4.2.2 **Requirements for Loop Feeder**

4.4.2.2.1 The Loop Feeder shall be capable of transmitting analog voice frequency, basic rate ISDN, digital data, or analog radio frequency signals as appropriate.

4.4.2.2.2 BellSouth shall provide appropriate power for all active elements in the Loop Feeder. BellSouth will provide appropriate power from a central office source, or from a commercial AC source with rectifiers for AC to DC conversion and 8-hour battery back-up when the equipment is located in an outside plant Remote Terminal (RT).

4.4.2.3 **Additional Requirements for Special Copper Loop Feeder Medium**

In addition to requirements set forth in Section 4.2 (above), MCIm may require BellSouth to provide copper twisted pair Loop Feeder which is unfettered by any intervening equipment (e.g. filters, load coils, and range extenders), so that MCIm can use these Loop Feeders for a variety of services by attaching appropriate terminal equipment at the ends.

4.4.2.4 **Additional Technical Requirements for DS1 Conditioned Loop Feeder**

In addition to the requirements set forth in Section 4.4.2.2 above, MCIm may designate that the Loop Feeder be conditioned to transport a DS1 signal. The requirements for such transport are defined in the references below in Section 4.4.2.6.

4.4.2.5 **Additional Technical Requirements for Optical Loop Feeder**

In addition to the requirements set forth in Section 4.4.2.2 above, MCIm may designate that Loop Feeder will transport DS3 and OCn (where n is defined in the technical reference in Section 4.4.1.2.4.4. The requirements for such transport are defined in the references below in Section 4.4.2.6.

4.4.2.6 BellSouth shall offer Loop Feeder in accordance with the requirements set forth in the following Technical References:

4.4.2.6.1 Bellcore Technical Requirement TR-NWT-000499, Issue 5, December 1993, section 7 for DS1 interfaces; and,

4.4.2.6.2 Bellcore TR-NWT-000057, Functional Criteria

for Digital Loop Carrier Systems, Issue 2, January 1993.

4.4.2.6.3 Bellcore TR-NWT-000393, Generic Requirements for ISDN Basic Access Digital Subscriber Lines.

4.4.2.6.4 ANSI T1.106-1988, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (Single Mode).

4.4.2.6.5 ANSI T1.105-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats.

4.4.2.6.6 ANSI T1.102-1993, American National Standard for Telecommunications - Digital Hierarchy - Electrical Interfaces.

4.4.2.6.7 ANSI T1.403-1989, American National Standard for Telecommunications - Carrier to Subscriber Installation, DS1 Metallic Interface Specification

4.4.2.6.8 Bellcore GR-253-CORE, Synchronous Optical Network Systems (SONET), Common Generic Criteria.

4.4.2.7 **Interface Requirements**

4.4.2.7.1 The Loop Feeder point of termination (POT) within a BellSouth central office will be as follows:

4.4.2.7.1.1 Copper twisted pairs shall terminate on the MDF;

4.4.2.7.1.2 DS1 Loop Feeder shall terminate on a DSX1, DCS1/0 or DCS3/1; and

4.4.2.7.1.3 Fiber Optic cable shall terminate on a LGX.

4.4.2.7.2 Loop Feeder shall be equal to or better than each of the applicable interface requirements set forth in the following technical references:

4.4.2.7.2.1 Bellcore TR-TSY-000008, Digital

Interface Between the SLC 96 Digital Loop Carrier System and a Local Digital Switch, Issue 2. August 1987.

4.4.2.7.2.2 Bellcore TR-NWT-000303, Integrated Digital Loop Carrier System Generic Requirements, Objectives and Interface, Issue 2, December 19921- Rev. 1, December 1993-1 Supplement 1, December 1993.

4.4.2.7.2.3 Bellcore Integrated Digital Loop Carrier System Generic Requirements, Objectives and Interface, GR-303-CORE, Issue 1, September 1995.

*4.5 **Network Interface Device***

4.5.1 **Definition:**

4.5.1.1 The Network Interface Device (NID) is a single-line termination device or that portion of a multiple-line termination device required to terminate a single line or circuit. The function of the NID is to establish the network demarcation point between a carrier and its subscriber. The NID features two independent chambers or divisions which separate the service provider's network from the subscriber's inside wiring. Each chamber or division contains the appropriate connection points or posts to which the service provider, and the subscriber each make their connections.

4.5.1.2 With respect to multiple-line termination devices, MCIm shall specify the quantity of NIDs it requires within such device.

4.5.1.3 Figure 1 shows a schematic of a NID.

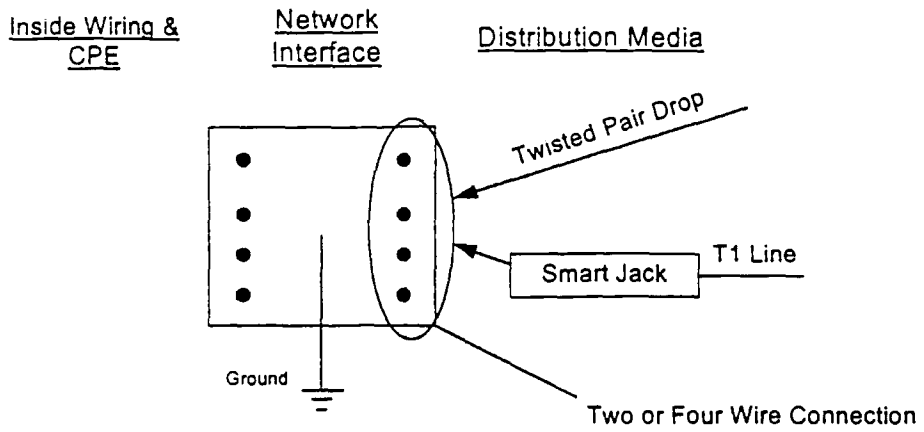


Figure 1 - Network Interface Device

4.5.2 **Technical Requirements**

4.5.2.1 The BellSouth Network Interface Device shall provide a clean, accessible point of connection for the inside wiring for MCIm's Distribution Media via MCIm's NID and shall maintain a connection to ground that meets the requirements set forth below.

4.5.2.2 The NID shall be capable of transferring electrical analog or digital signals between the subscriber's inside wiring for MCIm's Distribution Media via MCIm's NID.

4.5.2.3 All NID posts or connecting points shall be in place, secure, usable and free of any rust or corrosion. The protective ground connection shall exist and be properly installed. The ground wire shall be free of rust or corrosion and have continuity relative to ground.

4.5.2.4 The NID shall be capable of withstanding all normal local environmental variations.

4.5.2.5 Where the NID is not located in a larger, secure cabinet or closet, the NID shall be protected from physical vandalism. The NID shall be physically accessible to MCIm designated personnel. In cases where entrance to the subscriber premises is required to give access to the NID, MCIm shall obtain entrance permission directly from the subscriber.

4.5.2.6 BellSouth shall offer the NID together with, and separately from the Distribution Media component of Loop Distribution.

4.5.3 **Interface Requirements**

4.5.3.1 The NID shall be the interface to subscribers' premises wiring for all loop technologies.

4.5.3.2 The NID shall be equal to or better than all of the industry standards for NIDs set forth in the following technical references:

- 4.5.3.2.1 Bellcore Technical Advisory TA-TSY-000120 "Subscriber Premises or Network Ground Wire";

4.5.3.2.2 Bellcore Generic Requirement GR-49-CORE "Generic Requirements for Outdoor Telephone Network Interface Devices";

4.5.3.2.3 Bellcore Technical Requirement TR-NWT-00239 "Indoor Telephone Network Interfaces";

4.5.3.2.4 Bellcore Technical Requirement TR-NWT-000937 "Generic Requirements for Outdoor and Indoor Building Entrance"; and,

4.5.3.2.5 Bellcore Technical Requirement TR-NWT-0001 3 "Generic Requirements for Network Inside Wiring."

4.5.4 Responsibilities of The Parties for Conditions of Access And Attachment To NIDs. BellSouth shall allow MCIm to directly connect MCIm's Distribution Media to a BellSouth NID either by using excess capacity on the NID or, if no excess capacity exists, direct connection would involve disconnecting BellSouth's Distribution Media and attaching MCIm's Distribution Media to the NID. Where MCIm disconnects BellSouth's Distribution Media, MCIm shall ground BellSouth's Distribution Media and maintain the ground in accordance with standard industry practices. In the event an MCIm customer reverts to BellSouth, BellSouth shall disconnect MCIm's Distribution Media only under these same terms and conditions. MCIm shall assume responsibility and shall bear the burden of properly grounding the loop after disconnection and maintaining same in proper order and safety. MCIm shall assume full liability for its actions and for any adverse consequences that could result. MCIm's responsibility and

assumption of liability shall be the same for NIDs used in business settings which are similar to residential service NIDs, as for NIDs used for residential service.

4.6. Distribution

4.6.1 **Definition:**

4.6.1.1 Distribution is a Network Element that provides connectivity between the NID component of Loop Distribution and the terminal block on the subscriber-side of a Feeder Distribution Interface (FDI). The FDI is a device that terminates the Distribution Media and the Loop Feeder, and cross-connects them in order to provide a continuous transmission path between the NID and a telephone company central office. There are three basic types of feeder-distribution connection: (I) multiple (splicing of multiple distribution pairs onto one feeder pair); (ii) dedicated ("home run"); and (iii) interfaced ("cross-connected"). While older plant uses multiple and dedicated approaches, newer plant and all plant that uses DLC or other pair-gain technology necessarily uses the interfaced approach. The feeder-distribution interface (FDI) in the interfaced design makes use of a manual cross-connection, typically housed inside an outside plant device ("green box") or in a vault or manhole. Any request by MCIm for unbundling of Distribution Media will be made pursuant to the Bona Fide Request Process identified in Part A of this Agreement.

4.6.1.2 The Distribution may be copper twisted pair, coax cable, single or multi-mode fiber optic cable or other technologies. A combination that includes two or more of these media is also possible. In certain cases, MCIm shall require a copper twisted pair Distribution even in instances where the Distribution for services that BellSouth offers is other than a copper facility.

4.6.2 **Requirements for All Distribution**

4.6.2.1 Distribution shall be capable of transmitting signals for the following services (as requested by MCIm):

4.6.2.1.1 Two-wire & four-wire analog voice grade loops;

4.6.2.1.2 Two-wire & four-wire loops that are

conditioned to transmit the digital signals needed to provide services such as ISDN, ADSL, HDSL, and DS1-level signals.

4.6.2.2 Distribution shall transmit all signaling messages or tones. Where the Distribution includes any active elements that terminate any of the signaling messages or tones, these messages or tones shall be reproduced by the Distribution at the interfaces to an adjacent Network Element in a format that maintains the integrity of the signaling messages or tones.

4.6.2.3 Distribution shall support functions associated with provisioning, maintenance and testing of the Distribution itself, as well as provide necessary access to provisioning, maintenance and testing functions for Network Elements to which it is associated.

4.6.2.4 Where possible, Distribution shall provide performance monitoring of the Distribution itself, as well as provide necessary access for performance monitoring for Network Elements to which it is associated.

4.6.2.5 Distribution shall be equal to or better than all of the applicable requirements set forth in the following technical references:

4.6.2.5.1 Bellcore TR-TSY-000057, "Functional Criteria for Digital Loop Carrier Systems", and,

4.6.2.5.2 Bellcore TR-NWT-000393, "Generic Requirements for ISDN Basic Access Digital Subscriber Lines."

4.6.2.6 BellSouth shall provide MCIm with physical access to, and the right to connect to, the FDI.

4.6.2.7 BellSouth shall offer Distribution together with, and separately from the NID component of Loop Distribution.

4.6.3 **Additional Requirements for Special Copper Distribution**

In addition to Distribution that supports the requirements in Section 6.2. (above), MCIm may designate Distribution to be copper twisted pair which are unfettered by any intervening equipment (e.g., filters, load coils, range extenders) so that MCIm can use these loops for a

variety of services by attaching appropriate terminal equipment at the ends.

4.6.4 **Additional Requirements for Fiber Distribution**

Fiber optic cable Distribution shall be capable of transmitting signals for the following services in addition to the ones under Section 6.2.1 above:

4.6.4.1 DS3 rate private line service;

4.6.4.2 Optical SONET OCn rate private lines (where n is defined in the technical reference in Section 4.4.1.2.4.4; and

4.6.4.3 Analog Radio Frequency based services (e.g., Cable Television (CATV)).

4.6.5 **Additional Requirements for Coaxial Cable Distribution**

Coaxial Cable (coax) Distribution shall be capable of transmitting signals for the following services in addition to the ones under Section 6.2.1 above:

4.6.5.1 Broadband data, either one way or bi-directional, symmetric or asymmetric, at rates between 1.5 Mb/s and 45 Mb/s; and

4.6.5.2 Analog Radio Frequency based services (e.g., CATV).

4.6.6 **Interface Requirements**

4.6.6.1 Signal transfers between the Distribution and the NID and an adjacent Network Element shall have levels of degradation that are within the performance requirements set forth in Section 15.2 of this Attachment III.

4.6.6.2 Distribution shall be equal to or better than each of the applicable interface requirements set forth in the following technical references:

4.6.6.2.1 Bellcore TR-NWT-000049, "Generic Requirements for Outdoor Telephone Network Interface Devices," Issued December 1,1994;

4.6.6.2.2 Bellcore TR-NWT-000057, "Functional Criteria

for Digital Loop Carrier Systems," Issued January 2, 1993;

4.6.6.2.3 Bellcore TR-NWT-000393, "Generic Requirements for ISDN Basic Access Digital Subscriber Lines";

4.6.6.2.4 Bellcore TR-NWT-000253, SONET Transport Systems: Common Criteria (A module of TSGR, FR-NWT-000440), Issue 2, December 1991;

Section 5 – Left blank intentionally

Section 6 – Left blank intentionally

Section 7. Local Switching

7.1 **Definition**

7.1.1 Local Switching is the Network Element that provides the functionality required to connect the appropriate lines or trunks wired to the Main Distributing Frame (MDF) or Digital Cross Connect (DSX) panel to a desired line or trunk. The desired connection path for each call type will vary by subscriber and will be specified by MCIm as a routing scenario that will be implemented in advance as part of or after the purchases of the unbundled local switching. Such functionality shall include all of the features, functions, and capabilities that the underlying BellSouth switch that is providing such Local Switching function is capable of providing, including but not limited to: line signaling and signaling software, digit reception, dialed number translations, call screening, routing, recording, call supervision, dial tone, switching, telephone number provisioning, announcements, calling features and capabilities (including call processing), MULTISERV, or MULTISERV-like services, Automatic Call Distributor (ACD), Carrier pre-subscription (e.g., long distance carrier, intraLATA toll), Carrier Identification Code (CIC) portability capabilities, testing and other operational features inherent to the switch and switch software. It also provides access to transport, signaling (ISDN User Part (ISUP) and Transaction Capabilities Application Part (TCAP), and platforms such as adjuncts, Public Safety Systems (911), operator services, directory services and Advanced Intelligent Network (AIN). Remote Switching Module functionality is included in the Local Switching function. Local Switching shall also be capable of routing local, intraLATA, interLATA, calls to international subscriber's preferred carrier, call features (e.g., call forwarding) and MULTISERV

capabilities.

7.1.2 Local Switching, including the ability to route to MCIm's transport facilities, dedicated facilities and systems, shall be unbundled from all other unbundled Network Elements, i.e., Operator Systems, Common Transport, and Dedicated Transport. BellSouth shall provide MCIm with selective routing via Line Class Codes, on a first-come, first-served basis. Further, MCIm and BellSouth shall continue to work with the appropriate industry groups to develop a long term solution for selective routing.

7.2. **Technical Requirements**

7.2.1 Local Switching shall be equal to or better than the requirements for Local Switching set forth in Bellcore's Local Switching Systems General Requirements (FR-NWT-000064).

7.2.1.1 BellSouth shall route calls to the appropriate trunk or lines for call origination or termination.

7.2.1.2 Subject to Section 7.1.2, above, BellSouth shall route calls on a per line or per screening class basis to (1) BellSouth platforms providing Network Elements or additional requirements, (2) MCIm designated platforms, or (3) third party platforms. MCIm and BellSouth agree to use their best efforts to conserve line class codes.

7.2.1.3 Subject to Section 7.1.2, above, BellSouth shall provide unbranded recorded announcements as designated by MCIm and call progress tones to alert callers of call progress and disposition.

7.2.1.4 BellSouth shall change a subscriber from BellSouth's services to MCIm's services without loss of feature functionality, unless expressly agreed otherwise by MCIm.

7.2.1.5 BellSouth shall perform routine testing (e.g., Mechanized Loop Tests (MLT) and test calls such as 105, 107 and 108 type calls) and fault isolation on a schedule designated by MCIm.

7.2.1.6 BellSouth shall repair and restore any equipment or any other maintainable component that may adversely impact MCIm's use of unbundled Local Switching.

7.2.1.7 BellSouth shall control congestion points such as mass calling events, and network routing abnormalities, using capabilities such as Automatic Call Gapping, Automatic Congestion Control (e.g. choke trunk groups), and Network Routing Overflow. Application of such control shall be competitively neutral and not favor any user of unbundled switching or BellSouth.

7.2.1.8 BellSouth shall perform manual call trace as designated by MCIm and permit subscriber originated call trace.

7.2.1.9 BellSouth shall record all billable events, involving usage of the element, and send the appropriate recording data to MCIm as outlined in Attachment VIII.

7.2.1.10 For Local Switching used as 911 Tandems, BellSouth shall allow interconnection from MCIm local switching elements and BellSouth shall route the calls to the appropriate Public Safety Access Point (PSAP).

7.2.1.11 Where BellSouth provides the following special services, it shall provide to MCIm:

7.2.1.11.1 Essential Service Lines;

7.2.1.11.2 Telephone Service Prioritization;

7.2.1.11.3 Related services for handicapped;

7.2.1.11.4 Soft dial tone where required by law. Where BellSouth provides soft dial tone, it shall do so on a competitively-neutral basis.

7.2.1.11.5 Any other service required by law or regulation.

7.2.1.12 BellSouth shall provide Switching Service Point (SSP) capabilities and signaling software to interconnect the signaling links destined to the Signaling Transfer Point Switch (STPs). In the event that Local Switching is provided out of a switch without SS7 capability, the Tandem shall provide this capability as discussed in the section on Tandem Switching. These capabilities shall adhere to Bellcore specifications TCAP (GR-1432-CORE), ISUP (GR-905-CORE), Call Management (GR-1429-CORE), Switched Fractional DS1 (GR-1357-CORE), Toll

Free Service (GR-1428-CORE), Calling Name (GR-1597-CORE), Line Information Database (GR-954-CORE), and Advanced Intelligent Network (GR-2863-CORE).

7.2.1.13 BellSouth shall provide interfaces to adjuncts through industry standard and Bellcore interfaces. These adjuncts can include, but are not limited to, Service Node, Service Circuit Node, Voice Mail and Automatic Call Distributors. Examples of existing interfaces are ANSI ISDN standards Q.931 and Q.932.

7.2.1.14 BellSouth shall provide performance data regarding a subscriber line, traffic characteristics or other measurable elements to MCIm, upon MCIm's request.

7.2.1.15 BellSouth shall offer all Local Switching features that are Technically Feasible and provide feature offerings at parity to those provided by BellSouth to itself or any other party. Such feature offerings shall include but are not limited to:

7.2.1.15.1 Basic and primary rate ISDN;

7.2.1.15.2 Residential features;

7.2.1.15.3 Custom Local Area Signaling Services (CLASS/LASS);

7.2.1.15.4 Custom Calling Features;

7.2.1.15.5 MULTISERV (including equivalent administrative capabilities, such as subscriber accessible reconfiguration and detailed message recording); and

7.2.1.15.6 Advanced intelligent network triggers supporting MCIm, and BellSouth service applications, in BellSouth's SCPs. BellSouth shall offer to MCIm all AIN triggers currently available to BellSouth for offering AIN-based services in accordance with applicable Bellcore technical references:

7.2.1.15.6.1 Off-Hook Immediate;

7.2.1.15.6.2 Off-Hook Delay;

7.2.1.15.6.3 Termination Attempt;

7.2.1.15.6.4 3/6/10;

7.2.1.15.6.5 Feature Code Dialing;

7.2.1.15.6.6 Custom Dialing Plan(s) including 555 services; and

7.2.1.15.7 When the following triggers are supported by BellSouth, BellSouth shall make said triggers available to MCIm:

7.2.1.15.7.1 Private EAMF Trunk;

7.2.1.15.7.2 Shared Interoffice Trunk (EAMF, SS7);

7.2.1.15.7.3 N11;

7.2.1.15.7.4 Automatic Route Selection.

7.2.1.16 Subject to section 7.1.2, above, BellSouth shall assign each MCIm subscriber line the class of service designated by MCIm using line class codes, and shall route directory assistance calls from MCIm subscribers as directed by MCIm at MCIm's option. This includes each of the following call types:

7.2.1.16.1 O+/O- calls

7.2.1.16.2 911 calls

7.2.1.16.3 411/DA calls

7.2.1.16.4 InterLATA calls specific to PIC or regardless of PIC

7.2.1.16.5 IntraLATA calls specific to PIC or regardless of PIC

7.2.1.16.6 800/888 calls, prior to database query

7.1.2.16.7 Call forwarding of any type supported on the switch, to a line or a trunk

7.1.2.16.8 Any other customized routing that may be supported by the BellSouth switch

7.2.1.17 Subject to section 7.1.2, above, BellSouth shall assign each MCIm subscriber line the class of services designated by MCIm using line class codes and shall route operator calls from MCIm subscribers as directed by MCIm at MCIm's option. For example, BellSouth may translate 0- and 0+ intraLATA traffic, and route the call through appropriate trunks to an MCIm Operator Services Position System (OSPS). Calls from Local Switching must pass the ANI-II digits unchanged.

7.2.1.18 If an MCIm subscriber subscribes to MCIm provided voice mail and messaging services, BellSouth shall redirect incoming calls to the MCIm system based upon presubscribed service arrangements (e.g., busy, don't answer, number of rings). In addition, BellSouth shall provide a Standard Message Desk Interface-Enhanced (SMDI-E) interface to the MCIm system. BellSouth shall support the Inter-switch Voice Messaging Service (IVMS) capability.

7.2.1.19 Local Switching shall be offered in accordance with the requirements of the following technical references and their future releases:

7.2.1.19.1 GR-1298-CORE, AIN Switching System Generic Requirements;

7.2.1.19.2 GR-1299-CORE, AIN Switch-Service Control Point (SCP)/Adjunct Interface Generic Requirements;

7.2.1.19.3 TR-NWT-001284, AIN 0.1 Switching System Generic Requirements;

7.2.1.19.4 SR-NWT-002247, AIN Release 1 Update.

7.2.2 **Interface Requirements**

7.2.2.1 BellSouth shall provide the following interfaces to loops:

7.2.2.1.1 Standard Tip/Ring interface including loopstart or groundstart, on-hook signaling (e.g., for calling number, calling name and message waiting lamp);

7.2.2.1.2 Coin phone signaling;

7.2.2.1.3 Basic Rate Interface ISDN adhering to ANSI standards Q.931, Q.932 and appropriate Bellcore Technical Requirements;

7.2.2.1.4 Two-wire analog interface to PBX to include reverse battery, E&M, wink start and DID;

7.2.2.1.5 Four-wire analog interface to PBX to include reverse battery, E&M, wink start and DID;

7.2.2.1.6 Four-wire DS1 interface to PBX or subscriber provided equipment (e.g., computers and voice response systems);

7.2.2.1.7 Primary Rate ISDN to PBX adhering to ANSI standards Q.931, Q.932 and appropriate Bellcore Technical Requirements;

7.2.2.1.8 Switched Fractional DS1 with capabilities to configure Nx64 channels (where N ' 1 to 24); and

7.2.2.1.9 Loops adhering to Bellcore TR-NWT-08 and TR-NWT-303 specifications to interconnect Digital Loop Carriers.

7.2.2.2 BellSouth shall provide access to the following but not limited to:

7.2.2.2.1 SS7 Signaling Network or Multi-Frequency trunking if requested by MCIm;

7.2.2.2.2 Subject to Section 7.1.2, above, interface to MCIm operator services systems or Operator Services through appropriate trunk interconnections for the system; and

7.2.2.2.3 Subject to section 7.1.2, above, interface to MCIm directory assistance services through the MCIm switched network or to Directory Services through the appropriate trunk interconnections for the system; and 950 access or other MCIm required access to interexchange carriers as requested through appropriate trunk interfaces.

7.3 Integrated Services Digital Network (ISDN)

7.3.1 Integrated Services Digital Network (ISDN) is defined in two variations. The first variation is Basic Rate ISDN (BRI). BRI consists of 2 Bearer (B) Channels and one Data (D) Channel. The second variation is Primary Rate ISDN (PRI). PRI consists of 23 B Channels and one D Channel. Both BRI and PRI B Channels may be used for voice, Circuit Switched Data (CSD) or Packet Switched Data (PSD). The BRI D Channel may be used for call related signaling, non-call related signaling or packet switched data. The PRI D Channel may be used for call related signaling.

7.3.2 Technical Requirements ISDN

7.3.2.1 BellSouth shall offer Data Switching providing ISDN that, at a minimum:

7.3.2.2 Provide integrated Packet handling capabilities;

7.3.2.3 Allow for full 2B+D Channel functionality for BRI; and

7.3.2.4 Allow for full 23B+D Channel functionality for PRI.

7.3.2.5 Each B Channel shall allow for voice, 64 Kbps CSD, and PSD of 128 logical channels at minimum speeds of 19 Kbps throughput of each logical channel up to the total capacity of the B Channel.

7.3.2.6 Each B Channel shall provide capabilities for alternate voice and data on a per call basis.

7.3.2.7 The BRI D Channel shall allow for call associated signaling, non-call associated signaling and PSD of 16 logical channels at minimum speeds of 9.6 Kbps throughput of each logical channel up to the total capacity of the D channel.

7.3.2.8 The PRI D Channel shall allow for call associated signaling.

7.3.3 Interface Requirements ISDN

7.3.3.1 BellSouth shall provide the BRI U interface using 2-wire copper loops in accordance with TR-NWT-000393, January 1991, *Generic Requirements for ISDN Basic Access Digital*

Subscriber Lines.

7.3.3.2 BellSouth shall provide the BRI interface using Digital Subscriber Loops adhering to Bellcore TR-NWT-303 specifications to interconnect Digital Loop Carriers.

7.3.3.3 BellSouth shall offer PSD interfaces adhering to the X.25, X.75 and X.75' ANSI and Bellcore requirements.

7.3.3.4 BellSouth shall offer PSD trunk interfaces operating at 56 Kbps.

Section 8. Operator Systems

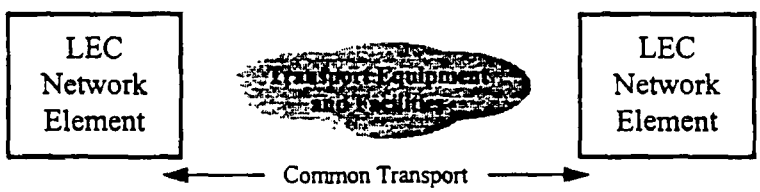
See Attachment VIII, Section 6.1.2 Directory Assistance Service and 6.1.3 Operator Service.

Section 9. Common Transport

9.1 **Definition**

Common Transport is an interoffice transmission path between BellSouth Network Elements (illustrated in Figure 2) shared by carriers. Where BellSouth Network Elements are connected by intra-office wiring, such wiring is provided as a part of the Network Elements and is not Common Transport. BellSouth shall offer Common Transport as of the effective date of the agreement, at DS0, DS1, DS3, STS-1 or higher transmission bit rate circuits. Common Transport consists of BellSouth inter-office transport facilities and is distinct and separate from local switching.

Figure 2



9.2 **Technical Requirements**

9.2.1 BellSouth shall be responsible for the engineering, provisioning, and maintenance of the underlying equipment and facilities that are used to provide Common Transport.

9.2.2 At a minimum, Common Transport shall meet all of the requirements set forth in the following technical references (as

applicable for the transport technology being used):

9.2.3. ANSI T1.101-1994, American National Standard for Telecommunications - Synchronization Interface Standard Performance and Availability;

9.2.3.1 ANSI T1.102-1993, American National Standard for Telecommunications - Digital Hierarchy - Electrical Interfaces;

9.2.3.2 ANSI T1.102.01-199x, American National Standard for Telecommunications - Digital Hierarchy - VT1.5;

9.2.3.3 ANSI T1.105-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats;

9.2.3.4 ANSI T1.105.01-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) Automatic Protection Switching;

9.2.3.5 ANSI T1.105.02-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Payload Mappings;

9.2.3.6 ANSI T1.105.03-1994, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Jitter at Network Interfaces;

9.2.3.7 ANSI T1.105.03a-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET)- Jitter at Network Interfaces - DS1 Supplement;

9.2.3.8 ANSI T1.105.05-1994, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Tandem Connection;

9.2.3.9 ANSI T1.105.06-199x, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Physical Layer Specifications;

9.2.3.10 ANSI T1.105.07-199x, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Sub STS-1 Interface Rates and Formats;

9.2.3.11 ANSI T1.105.09-199x, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Network Element Timing and Synchronization;

9.2.3.12 ANSI T1.106-1988, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (Single Mode);

9.2.3.13 ANSI T1.107-1988, American National Standard for Telecommunications - Digital Hierarchy - Formats Specifications;

9.2.3.14 ANSI T1.107a-1990 -American National Standard for Telecommunications - Digital Hierarchy - Supplement to Formats Specifications (DS3 Format Applications);

9.2.3.15 ANSI T1.107b-1991 -American National Standard for Telecommunications - Digital Hierarchy - Supplement to Formats Specifications;

9.2.3.16 ANSI T1.117-1991, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (SONET) (Single Mode - Short Reach);

9.2.3.17 ANSI T1.403-1989, Carrier to Subscriber Installation, DS1 Metallic Interface Specification;

9.2.3.18 ANSI T1.404-1994, Network-to-Subscriber Installation - DS3 Metallic Interface Specification;

9.2.3.19 ITU Recommendation G.707, Network node interface for the synchronous digital hierarchy (SDH);

9.2.3.20 ITU Recommendation G.704, Synchronous frame structures used at 1544, 6312, 2048, 8488 and 44736 kbit/s hierarchical levels;

9.2.3.21 Bellcore FR-440 and TR-NWT-000499, Transport Systems Generic Requirements (TSGR): Common Requirements;

9.2.3.22 Bellcore GR-820-CORE, Generic Transmission Surveillance: DS1 & DS3 Performance;

9.2.3.23 Bellcore GR-253-CORE, Synchronous Optical

Network Systems (SONET); Common Generic Criteria;

9.2.3.24 Bellcore TR-NWT 000507, Transmission, Section 7, Issue 5 (Bellcore, December 1993). (A module of LSSGR, FR-NWT-000064.);

9.2.3.25 Bellcore TR-NWT-000776, Network Interface Description for ISDN Subscriber Access;

9.2.3.26 Bellcore TR-INS-000342, High-Capacity Digital Special Access Service-Transmission Parameter Limits and Interface Combinations, Issue 1 February 1991;

9.2.3.27 Bellcore ST-TEC-000052, Telecommunications Transmission Engineering Textbook, Volume 2: Facilities, Third Edition, Issue I May 1989;

9.2.3.28 Bellcore ST-TEC-000051, Telecommunications Transmission Engineering Textbook Volume 1: Principles, Third Edition. Issue 1 August 1987;

Section 10. Dedicated Transport

10.1 **Definition**

10.1.1 Dedicated Transport is an interoffice transmission path between MCIm designated locations to which MCIm is granted exclusive use. Such locations may include BellSouth central offices or other locations, MCIm network components, other carrier network components, or subscriber premises. Dedicated Transport is depicted below in Figure 3.

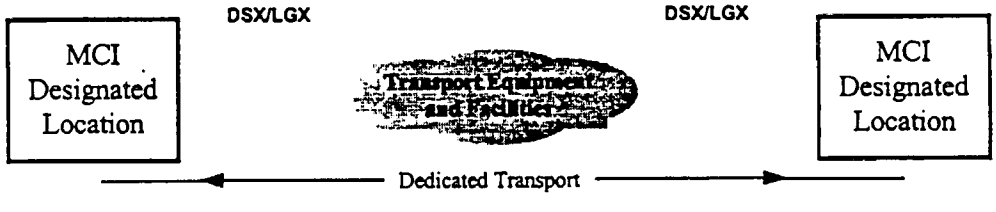


Figure 3

10.1.2 BellSouth shall offer Dedicated Transport in each of the following manners:

10.1.2.1 As capacity on a shared facility.

10.1.2.2 As a circuit (e.g., DS1, DS3, STS-1) dedicated to MCIm.

10.1.2.3 As a system (i.e., the equipment and facilities used to provide Dedicated Transport such as SONET ring) dedicated to MCIm.

10.1.3 When Dedicated Transport is provided as a circuit or as capacity on a shared facility, it shall include (as appropriate):

10.1.3.1 Multiplexing functionality;

10.1.3.2 Grooming functionality; and,

10.1.3.3 Redundant equipment and facilities necessary to support protection and restoration.

10.1.4 When Dedicated Transport is provided as a system it shall include:

10.1.4.1 Transmission equipment such as multiplexers, line terminating equipment, amplifiers, and regenerators;

10.1.4.2 Inter-office transmission facilities such as optical fiber, dark fiber, copper twisted pair, and coaxial cable;

10.1.4.3 Redundant equipment and facilities necessary to support protection and restoration; and,

10.1.4.4 Dedicated Transport includes the Digital Cross-Connect System (DCS) functionality as an option. DCS is described below in Section 10.5..

10.2 **Technical Requirements -**

This Section sets forth technical requirements for all Dedicated Transport.

10.2.1 When BellSouth provides Dedicated Transport as a circuit or a system, the entire designated transmission circuit or system (e.g., DS1, DS3, STS-1) shall be dedicated to MCIm designated traffic.

10.2.2 BellSouth shall offer Dedicated Transport using currently available technologies including, but not limited to, DS1 and DS3

transport systems, SONET (or SDH) Bi-directional Line Switched Rings, SONET (or SDH) Unidirectional Path Switched Rings, and SONET (or SDH) point-to-point transport systems (including linear add-drop systems), at all available transmission bit rates.

10.2.3 When requested by MCIm, Dedicated Transport shall provide physical diversity. Physical diversity means that two circuits are provisioned in such a way that no single failure of facilities or equipment will cause a failure on both circuits.

10.2.4 When physical diversity is requested by MCIm, BellSouth shall provide the maximum feasible physical separation between transmission paths for all facilities and equipment (unless otherwise agreed by MCIm).

10.2.5 Upon MCIm's request, BellSouth shall provide real time and continuous remote access to performance monitoring and alarm data affecting, or potentially affecting, MCIm's traffic.

10.2.6 BellSouth shall offer the following interface transmission rates for Dedicated Transport:

10.2.6.1 DS1 (Extended SuperFrame - ESF/B8ZS, D4, and unframed applications shall be provided);

10.2.6.2 DS3 (C-bit Parity, M13, and unframed applications shall be provided);

10.2.6.3 SONET standard interface rates in accordance with ANSI T1.105 and ANSI T1.105.07 and physical interfaces per ANSI T1.106.06 (including referenced interfaces). In particular, VT1.5 based STS-1s will be the interface at an MCIm service node.

10.2.6.4 SDH Standard interface rates in accordance with International Telecommunications Union (ITU) Recommendation G.707 and Plesiochronous Digital Hierarchy (PDH) rates per ITU Recommendation G.704.

10.2.7 BellSouth shall provide cross-office wiring up to a suitable Point of Termination (POT) between Dedicated Transport and MCIm designated equipment. BellSouth shall provide the following equipment for the physical POT:

10.2.7.1 DSX1 for DS1s or VT1.5s;

10.2.7.2 DSX3 for DS3s or STS-1s; and

10.2.7.3 LGX for optical signals (e.g., OC-3 and OC-12).

10.2.8 Left Blank Intentionally

10.2.9 For Dedicated Transport provided as a system, BellSouth shall design the system (including but not limited to facility routing and termination points) according to MCIm specifications where the MCIm specifications are available. Those MCIm specifications not available shall be addressed via the bona fide request process.

10.2.10 Upon MCIm's request, BellSouth shall provide MCIm with electronic provisioning control of an MCIm specified Dedicated Transport on SONET rings. As system development allows, either initiated by BellSouth or via the bona fide request process, BellSouth shall provide electronic provisioning control of linear transport systems.

10.2.11 BellSouth shall offer Dedicated Transport together with and separately from DCS.

10.3 **Technical Requirements for Dedicated Transport Using SONET Technology**

This Section sets forth additional technical requirements for Dedicated Transport using SONET technology including rings, point-to-point systems, and linear add-drop systems.

10.3.1 All SONET Dedicated Transport provided as a system shall:

10.3.1.1 Be synchronized from both a primary and secondary Stratum 1 level timing source.

10.3.1.2 Provide SONET standard interfaces which properly interwork with SONET standard equipment from other vendors. This includes, but is not limited to, SONET standard Section, Line and Path performance monitoring, maintenance signals, alarms, and data channels.

10.3.1.3 Provide Data Communications Channel (DCC) or equivalent connectivity through the SONET transport system. Dedicated Transport provided over a SONET transport system shall be capable of routing DCC messages between MCIm and SONET network components connected to the Dedicated

Transport. For example, if MCIm leases a SONET ring from BellSouth, that ring shall support DCC message routing between MCIm and SONET network components connected to the ring.

10.3.1.4 Support the following performance requirements for each circuit (STS-1, DS1, DS3, etc.):

10.3.1.4.1 No more than 10 Errored Seconds Per Day (Errored Seconds are defined in the technical reference at Section 10.4.5); and

10.3.1.4.2 No more than 1 Severely Errored Second Per Day (Severely Errored Seconds are defined in the technical reference at Section 10.4.5).

10.3.2 SONET rings shall:

10.3.2.1 Be provisioned on physically diverse fiber optic cables (including separate building entrances where available and diversely routed intraoffice wiring). "Diversely routed" shall be interpreted as the maximum feasible physical separation between transmission paths, unless otherwise agreed by MCIm.

10.3.2.2 Support dual ring interworking per SONET Standards.

10.3.2.3 Where Technically Feasible, provide the necessary redundancy in optics, electronics, and transmission paths (including intra-office wiring) such that no single failure will cause a service interruption.

10.3.2.4 Provide the ability to disable ring protection switching at MCIm's direction (selective protection lock-out). This requirement applies to line switched rings only. The only exceptions to this requirement shall be BellSouth SONET equipment in use as of the Effective Date which lacks that functionality.

10.3.2.5 Provide the ability to use the protection channels to carry traffic (extra traffic). This requirement applies to line switched rings only. The only exceptions to this requirement shall be BellSouth SONET equipment in use as of the Effective Date which lacks that functionality.

10.3.2.6 Provide 50 millisecond restoration unless a ring

protection delay is set to accommodate dual ring interworking schemes.

10.3.2.7 Have settable ring protection switching thresholds that shall be set in accordance with MCIm's specifications.

10.3.2.8 Provide revertive protection switching with a settable wait to restore delay with a default setting of 5 minutes. This requirement applies to line switched rings only.

10.3.2.9 Provide non-revertive protection switching. This requirement applies to path switched rings only.

10.3.2.10 Adhere to the following availability requirements, where availability is defined in the technical reference set forth in Section 10.4.5.

10.3.2.10.1 No more than 0.25 minutes of unavailability month; and

10.3.2.10.2 No more than 0.5 minutes of unavailability per year.

10.4 At a minimum, Dedicated Transport shall meet each of the requirements set forth in Section 9.2.3 and in the following technical references.

10.4.1 ANSI T1.105.04-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Data Communication Channel Protocols and Architectures;

10.4.2 ANSI T1.119-1994, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Operations, Administration, Maintenance, and Provisioning (OAM&P) Communications;

10.4.3 ANSI T1.119.01-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) Operations, Administration, Maintenance, and Provisioning (OAM&P) Communications Protection Switching Fragment;

10.4.4 ANSI T1.119.02-199x, American National Standard for Telecommunications - Synchronous Optical Network (SONET) Operations, Administration, Maintenance, and Provisioning (OAM&P) Communications Performance Monitoring Fragment;

10.4.5 ANSI T1.231-1993 -American National Standard for Telecommunications - Digital Hierarchy - Layer 1 In-Service Digital Transmission Performance Monitoring.

10.5 **Digital Cross-Connect System (DCS)**

10.5.1 **Definition**:

10.5.1.1 DCS provides automated cross connection of Digital Signal level 0 (DS0) or higher transmission bit rate digital channels within physical interface facilities. Types of DCSs include but are not limited to DCS 1/0s, DCS 3/1s, and DCS 3/3s, where the nomenclature 1/0 denotes interfaces typically at the DS1 rate or greater with cross-connection typically at the DS0 rate. This same nomenclature, at the appropriate rate substitution, extends to the other types of DCSs specifically cited as 3/1 and 3/3. Types of DCSs that cross-connect Synchronous Transport Signal level 1 (STS-1 s) or other Synchronous Optical Network (SONET) signals (e.g., STS-3) are also DCSs, although not denoted by this same type of nomenclature. DCS may provide the functionality of more than one of the aforementioned DCS types (e.g., DCS 3/3/1 which combines functionality of DCS 3/3 and DCS 3/1). For such DCSs, the requirements will be, at least, the aggregation of requirements on the "component" DCSs.

10.5.1.2 In locations where automated cross connection capability does not exist, DCS will be defined as the combination of the functionality provided by a Digital Signal Cross-Connect (DSX) or Light Guide Cross-Connect (LGX) patch panels and D4 channel banks or other DS0 and above multiplexing equipment used to provide the function of a manual cross connection.

10.5.1.3 Interconnection between a DSX or LGX, to a switch, another cross-connect, or other service platform device, is included as part of DCS.

10.6 **DCS Technical Requirements**

10.6.1 DCS shall provide completed end-to-end cross connection of the channels designated by MCIm.

10.6.2 Where Technically Feasible, DCS shall perform facility

grooming, multipoint bridging, one-way broadcast, two-way broadcast, and facility test functions.

10.6.3 DCS shall provide multiplexing, format conversion, signaling conversion, or other functions.

10.6.4 The end-to-end cross connection assignment shall be input to the underlying device used to provide DCS from an operator at a terminal or via an intermediate system. The cross connection assignment shall remain in effect whether or not the circuit is in use.

10.6.5 BellSouth shall continue to administer and maintain DCS, including updates to the control software to current available releases.

10.6.6 BellSouth shall provide various types of Digital Cross-Connect Systems including:

10.6.6.1 DS0 cross-connects (typically termed DCS 1/0);

10.6.6.2 DS1/VT1.5 (Virtual Tributaries at the 1.5Mbps rate) cross-connects (typically termed DCS 3/1);

10.6.6.3 DS3 cross-connects (typically termed DCS 3/3);

10.6.6.4 STS-1 cross-connects; and

10.6.6.5 Other Technically Feasible cross-connects designated by MCIm.

10.6.7 BellSouth shall provide an automated interface which allows real time configuration and reconfiguration of the channels between the physical interfaces.

10.6.8 Left Blank Intentionally

10.6.9 DCS shall continuously monitor protected circuit packs and redundant common equipment.

10.6.10 DCS shall automatically switch to a protection circuit pack on detection of a failure or degradation of normal operation.

10.6.11 The underlying equipment used to provide DCS shall be equipped with a redundant power supply or a battery back-up.

10.6.12 BellSouth shall make available to MCIm spare facilities and

equipment necessary for provisioning repairs, and to meet MCIm's maintenance standards as specified in the Provisioning and Maintenance sections.

10.6.13 At MCIm's option, BellSouth shall provide MCIm with real time performance monitoring and alarm data on the signals and the components of the underlying equipment used to provide DCS that actually impact MCIm's services.

10.6.14 Where Technically Feasible, at MCIm's option, BellSouth shall provide MCIm with real time ability to initiate tests on integrated equipment used to test the signals and the underlying equipment used to provide DCS, as well as other integrated functionality for routine testing and fault isolation.

10.6.15 Where Technically Feasible, DCS shall provide SONET to asynchronous gateway functionality (e.g., STS-1 to DS1 or STS-1 to DS3).

10.6.16 Where Technically Feasible, DCS shall perform optical to electrical conversion where the underlying equipment used to provide DCS contains optical interfaces or terminations (e.g., Optical Carrier level 3, i.e., OC-3, interfaces on a DCS 3/1).

10.6.17 Where Technically Feasible, DCS shall have SONET ring terminal functionality where the underlying equipment used to provide DCS acts as a terminal on a SONET ring.

10.6.18 Where Technically Feasible, DCS shall provide multipoint bridging of multiple channels to other DCSs. MCIm may designate multipoint bridging to be one-way broadcast from a single master to multiple tributaries, or two-way broadcast between a single master and multiple tributaries.

10.6.19 Where Technically Feasible, DCS shall multiplex lower speed channels onto a higher speed interface and demultiplex higher speed channels onto lower speed interfaces as designated by MCIm.

10.7 **DCS Interface Requirements**

10.7.1 BellSouth shall provide physical interfaces on DS0, DS1, and VT1.5 channel cross-connect devices at the DS1 rate or higher. In all such cases, these interfaces shall be in compliance with applicable Bellcore, ANSI, ITU, and MCIm standards.

10.7.2 BellSouth shall provide physical interfaces on DS3 channel cross-connect devices at the DS3 rate or higher. In all such cases, these interfaces shall be in compliance with applicable Bellcore, ANSI, ITU, and MCIm standards.

10.7.3 BellSouth shall provide physical interfaces on STS-1 cross-connect devices at the OC-3 rate or higher. In all such cases, these interfaces shall be in compliance with applicable Bellcore, ANSI, ITU, and MCIm standards.

10.7.4 Interfaces on all other cross-connect devices shall be in compliance with applicable Bellcore, ANSI, ITU, and MCIm standards.

10.8 DCS shall, at a minimum, meet all the requirements set forth in the following technical references:

10.8.1 ANSI T1.102-1993, American National Standard for Telecommunications - Digital Hierarchy - Electrical Interfaces;

10.8.2 ANSI T1.102.01-199x, American National Standard for Telecommunications - Digital Hierarchy - VT1.5;

10.8.3 ANSI T1.105-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats;

10.8.4 ANSI T1.105.03-1994, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Jitter at Network Interfaces;

10.8.5 ANSI T1.105.03a-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET): Jitter at Network Interfaces - DS1 Supplement;

10.8.6 ANSI T1.105.06-199x, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Physical Layer Specifications;

10.8.7 ANSI T1.106-1988, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (Single Mode);

10.8.8 ANSI T1.107-1988, American National Standard for Telecommunications - Digital Hierarchy - Formats Specifications;

10.8.9 ANSI T1.107a-1990, American National Standard for Telecommunications - Digital Hierarchy - Supplement to Formats Specifications (DS3 Format Applications);

10.8.10 ANSI T1.107b-1991, American National Standard for Telecommunications - Digital Hierarchy - Supplement to Formats Specifications;

10.8.11 ANSI T1.117-1991, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (SONET) (Single Mode - Short Reach);

10.8.12 ANSI T1.403-1989, Carrier to Subscriber Installation, DS1 Metallic Interface Specification:

10.8.13 ANSI T1.404-1994, Network-to-Subscriber Installation - DS3 Metallic Interface Specification;

10.8.14 FR-440 and TR-NWT-000499, Transport Systems Generic Requirements (TSGR): Common Requirements;

10.8.15 GR-820-CORE, Generic Transmission Surveillance: DS1 & DS3 Performance;

10.8.16 GR-253-CORE, Synchronous Optical Network Systems (SONET); Common Generic Criteria; and

10.8.17 TR-NWT-000776, Network Interface Description for ISDN Subscriber Access.

Section 11. Signaling Link Transport -

11.1 **Definition**

Signaling Link Transport is a set of two or four dedicated 56 Kbps transmission paths between MCIm-designated Signaling Points of Interconnection (SPOI) that provides appropriate physical diversity and a cross connect at a BellSouth STP site.

11.2 **Technical Requirements**

11.2.1 Signaling Link Transport shall consist of full duplex mode 56 Kbps transmission paths.

11.2.2 Of the various options available, Signaling Link Transport shall

perform in the following two ways:

11.2.2.1 As an "A-link" which is a connection between a switch or SCP and a home Signaling Transfer Point Switch (STPs) pair; and

11.2.2.2 As a "D-link" which is a connection between two STPs pairs in different company networks (e.g., between two STPs pairs for two Competitive Local Exchange Carriers (CLECs)).

11.2.3 Signaling Link Transport shall consist of two or more signaling link layers as follows:

11.2.3.1 An A-link layer shall consist of two links.

11.2.3.2 A D-link layer shall consist of four links.

11.2.4 A signaling link layer shall satisfy a performance objective such that:

11.2.4.1 There shall be no more than two minutes down time per year for an A-link layer, and

11.2.4.2 There shall be negligible (less than 2 seconds) down time per year for a D-link layer.

11.2.5 A signaling link layer shall satisfy interoffice and intraoffice diversity of facilities and equipment, such that:

11.2.5.1 No single failure of facilities or equipment causes the failure of both links in an A-link layer (i.e., the links should be provided on a minimum of two separate physical paths end-to-end); and

11.2.5.2 No two concurrent failures of facilities or equipment shall cause the failure of all four links in a D-link layer (i.e., the links should be provided on a minimum of three separate physical paths end-to-end).

11.3 Interface Requirements

11.3.1 There shall be a DS1 (1.544 Mbps) interface at the MCIm-designated SPOIs. Each 56 Kbps transmission path shall appear as a DS0 channel within the DS1 interface.

Section 12. Signaling Transfer Points (STPs)

12.1 **Definition**

Signaling Transfer Points (STPs) provide functionality that enable the exchange of SS7 messages among and between switching elements, database elements and signaling transfer points. Figure 4 depicts Signaling Transfer Points.

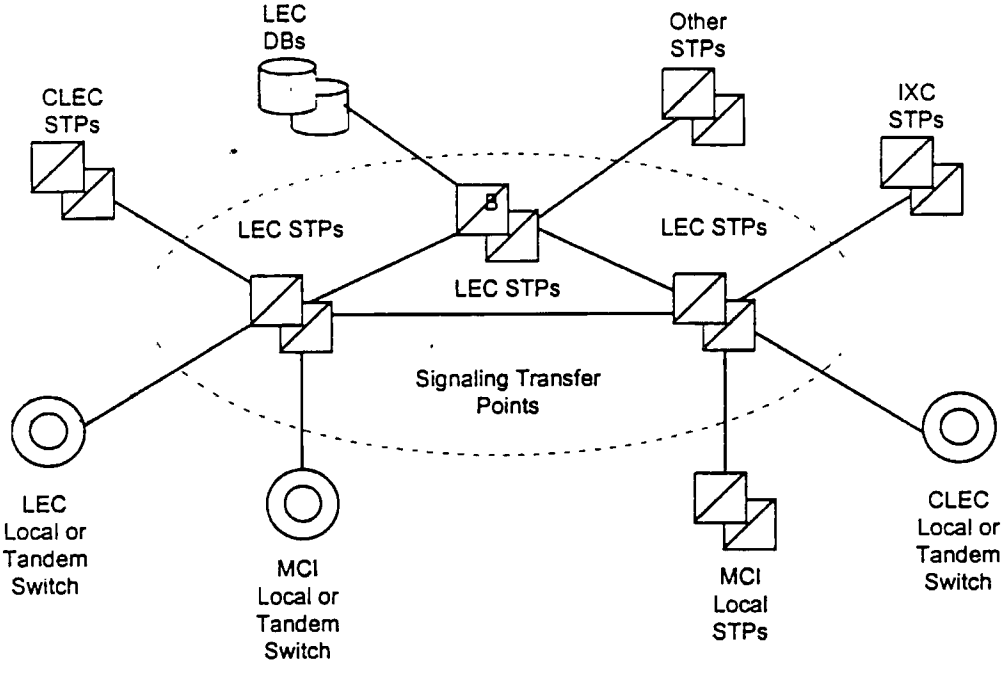


Figure 4

12.2 **Technical Requirements**

12.2.1 STPs shall provide access to all other Network Elements connected to the BellSouth SS7 network. These include:

12.2.1.1 BellSouth Local Switching or Tandem Switching;

12.2.1.2 BellSouth Service Control Points/DataBases;

12.2.1.3 Third-party local or tandem switching systems; and

12.2.1.4 Third-party-provided STPs.

12.2.2 The connectivity provided by STPs shall fully support the functions of all other Network Elements connected to BellSouth's SS7 network. This explicitly includes the use of BellSouth's SS7 network to convey messages which neither originate nor terminate at a signaling end point directly connected to the BellSouth SS7 network (i.e., transit messages). When the BellSouth SS7 network is used to convey transit messages, there shall be no alteration of the Integrated Services Digital Network User Part (ISDNUP) or Transaction Capabilities Application Part (TCAP) user data that constitutes the content of the message.

12.2.3 If a BellSouth tandem switch routes calling traffic, based on dialed or translated digits, on SS7 trunks between an MCIm local switch and third party local switch, BellSouth's SS7 network shall convey the TCAP messages that are necessary to provide Call Management features (Automatic Callback, Automatic Recall, and Screening List Editing) between the MCIm local STPs and the STPs that provide connectivity with the third party local switch, even if the third party local switch is not directly connected to BellSouth's STPs.

12.2.4 STPs shall provide all functions of the MTP as specified in ANSI T1.111 (Reference 12.5.2). This includes:

12.2.4.1 Signaling Data Link functions, as specified in ANSI T1.111.2;

12.2.4.2 Signaling Link functions, as specified in ANSI T1.111.3; and

12.2.4.3 Signaling Network Management functions, as specified in ANSI T1.111.4.

12.2.5 STPs shall provide all functions of the SCCP necessary for Class 0 (basic connectionless) service, as specified in ANSI T1.112 (Reference 12.5.4). In particular, this includes Global Title Translation (GTT) and SCCP Management procedures, as specified in T1.112.4.

12.2.6 In cases where the destination signaling point is a BellSouth local or tandem switching system or data base, or is an MCIm or third party local or tandem switching system directly connected to BellSouth's SS7 network, BellSouth STPs shall perform final GTT of messages to the destination and SCCP Subsystem Management of the destination. In all other cases, STPs shall perform intermediate GTT of messages to a gateway pair of STPs in an SS7 network connected with the BellSouth SS7 network, and shall not perform SCCP Subsystem Management of the destination.

12.2.7 STPs shall also provide the capability to route SCCP messages based on ISNI, as specified in ANSI T1.118 (Reference 12.5.7), when this capability becomes available on BellSouth STPs.

12.2.8 STPs shall provide all functions of the OMAP commonly provided by STPs, as specified in the reference in Section 12.5.6. Upon MCIm request, BellSouth will identify the switches in which OMAP functionality is available. This includes:

12.2.8.1 MTP Routing Verification Test (MRVT); and,

12.2.8.2 SCCP Routing Verification Test (SRVT).

12.2.9 In cases where the destination signaling point is a BellSouth local or tandem switching system or DB, or is an MCIm or third party local or tandem switching system directly connected to the BellSouth SS7 network, STPs shall perform MRVT and SRVT to the destination signaling point. In all other cases, STPs shall perform MRVT and SRVT to a gateway pair of STPs in an SS7 network connected with the BellSouth SS7 network. This requirement shall be superseded by the specifications for Internetwork MRVT and SRVT if and when these become approved ANSI standards and available capabilities of BellSouth STPs, and when mutually agreed upon by MCIm and BellSouth.

12.2.10 STPs shall be equal to or better than the following performance requirements:

12.2.10.1 MTP Performance, as specified in ANSI T1.111.6; and

12.2.10.2 SCCP Performance, as specified in ANSI T1.112.5.

12.3 Interface Requirements

12.3.1 BellSouth shall provide the following STPs options to connect MCIm or MCIm-designated local switching systems or STPs to the BellSouth SS7 network:

12.3.1.1 An A-link interface from MCIm local switching systems; and,

12.3.2 Each type of interface shall be provided by one or more sets (layers) of signaling links, as follows:

12.3.2.1 An A-link layer shall consist of two links, as depicted in Figure 6.

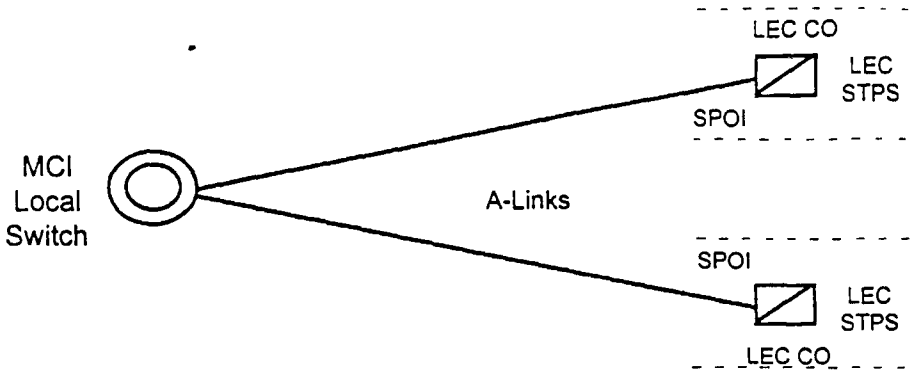


Figure 6. A-Link Interface

12.3.3 The Signaling point of Interconnection (SPOI) for each link shall be located at a cross-connect element, such as a DSX-1, in the Central Office (CO) where the BellSouth STPs is located. There shall be a DSI or higher rate transport interface at each of the SPOIs. Each signaling link shall appear as a DS0 channel within the DS1 or higher rate interface.

BellSouth shall offer higher rate DS1 signaling for interconnecting MCIm local switching systems or STPs with BellSouth STPs as soon as these become approved ANSI standards and available capabilities of BellSouth STPs. MCIm and BellSouth shall cooperate to establish mutually agreed upon SPOI's.

12.3.4 BellSouth shall provide MTP and SCCP protocol interfaces that shall conform to all sections relevant to the MTP or SCCP in the following specifications:

12.3.4.1 Bellcore GR-905-CORE, Common Channel Signaling Network Interface Specification (CCSNIS) Supporting Network Interconnection, Message Transfer Part (MTP), and Integrated Services Digital Network User Part (ISDNUP); and

12.3.4.2 Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP).

12.4 **Message Screening**

12.4.1 BellSouth shall set message screening parameters so as to accept messages from MCIm local or tandem switching systems destined to any signaling point in the BellSouth SS7 network with which the MCIm switching system has a legitimate signaling relation.

12.4.2 BellSouth shall set message screening parameters so as to accept messages from MCIm local or tandem switching systems destined to any signaling point or network interconnected to the BellSouth SS7 network with which the MCIm switching system has a legitimate signaling relation.

12.4.3 BellSouth shall set message screening parameters so as to accept messages destined to an MCIm local or tandem switching system from any signaling point or network interconnected to the BellSouth SS7 network with which the MCIm switching system has a legitimate signaling relation.

12.4.4 BellSouth shall set message screening parameters so as to accept and send messages destined to an MCIm SCP from any signaling point or network interconnected to the BellSouth SS7 network with which the MCIm SCP has a legitimate signaling relation.

12.5 **STP Requirements**

12.5.1 STPs shall be equal to or better than all of the requirements for STPs set forth in the following technical references:

12.5.2 ANSI T1.111-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Message Transfer Part (MTP);

12.5.3 ANSI T1.111A-1994 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Message Transfer Part (MTP) Supplement;

12.5.4 ANSI T1.112-1992 American National, Standard for Telecommunications - Signaling System Number 7 (SS7) - Signaling Connection Control Part (SCCP);

12.5.5 ANSI T1.115-1990 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Monitoring and Measurements for Networks;

12.5.6 ANSI T1.116-1990 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Operations,

Maintenance and Administration Part (OMAP);

12.5.7 ANSI T1.118-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Intermediate Signaling Network Identification (ISNI);

12.5.8 Bellcore GR-905-CORE, Common Channel Signaling Network Interface Specification (CCSNIS) Supporting Network Interconnection, Message Transfer Part (MTP), and Integrated Services Digital Network User Part (ISDNUP); and

12.5.9 Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP).

Section 13. Service Control Points/Databases

13.1 **Definition**

13.1.1 Databases are the Network Elements that provide the functionality for storage of, access to, and manipulation of information required to offer a particular service and/or capability. Databases include, but are not limited to: Number Portability, LIDB, Toll Free Number Database, Automatic Location Identification/Data Management System, and AIN.

13.1.2 A Service Control Point (SCP) is a specific type of Database Network Element functionality deployed in a Signaling System 7 (SS7) network that executes service application logic in response to SS7 queries sent to it by a switching system also connected to the SS7 network. SCPs also provide operational interfaces to allow for provisioning, administration and maintenance of subscriber data and service application data. (e.g., an 800 database stores subscriber record data that provides information necessary to route 800 calls).

13.2 **Technical Requirements for SCPs/Databases**

Requirements for SCPs/Databases within this section address storage of information, access to information (e.g. signaling protocols, response times), and administration of information (e.g., provisioning, administration, and maintenance). All SCPs/Databases shall be provided to MCIm in accordance with the following requirements, except where such a requirement is superseded by specific requirements set forth in Subsections 13.3 through 13.7:

13.2.1 BellSouth shall provide physical interconnection to SCPs through the SS7 network and protocols, as specified in Section 12 of this Attachment, with TCAP as the application layer protocol.

13.2.2 BellSouth shall provide physical interconnection to databases via industry standard interfaces and protocols (e.g., ISDN and X.25).

13.2.3 The reliability of interconnection options shall be consistent with requirements for diversity and survivability as specified in Section 12 of this Attachment (which applies to both SS7 and non-SS7 interfaces).

13.2.4 Database functionality shall be unavailable a maximum of 30 minutes per year.

13.2.5 BellSouth shall provide Database provisioning consistent with the provisioning requirements of this Agreement (e.g., data required, edits, acknowledgments, data format and transmission medium and notification of order completion).

13.2.6 The operational interface provided by BellSouth shall complete Database transactions (i.e., add, modify, delete) for MCIm subscriber records stored in BellSouth databases within an interval at parity with BellSouth's own provisioning schedule..

13.2.7 BellSouth shall provide Database maintenance consistent with the maintenance requirements as specified in this Agreement (e.g., notification of BellSouth Network Affecting Events, testing, dispatch schedule and measurement and exception reports).

13.2.8 BellSouth shall provide billing and recording information to track database usage consistent with connectivity billing and recording requirements as specified in this Agreement (e.g., recorded message format and content, timeliness of feed, data format and transmission medium). .

13.2.9 BellSouth shall provide SCPs/Databases in accordance with the physical security requirements specified in this Agreement.

13.2.10 BellSouth shall provide SCPs/Databases in accordance with the logical security requirements specified in this Agreement.

13.3 **Number Portability Database**

Permanent Number Portability (PNP) is currently being worked in industry

forums. The results of these forums will dictate the industry direction of PNP. BellSouth and MCIm agree to implement PNP as directed by the FCC as a result of final, nonappealable orders in FCC Docket 95-116 and the appropriate industry forums.

13.4 Line Information Database (LIDB)

This Subsection 13.4 defines and sets forth additional requirements for the Line Information Database. This Subsection 13.4 supplements the requirements of Subsection 13.2 and 13.7.

13.4.1 Definition

The Line Information Database (LIDB) is a transaction-oriented database accessible through Common Channel Signaling (CCS) networks. It contains records associated with subscriber Line Numbers and Special Billing Numbers (in accordance with the requirements in the technical reference in Section 13.7.5). LIDB accepts queries from other Network Elements, or MCIm's network, and provides appropriate responses. The query originator need not be the owner of LIDB data. LIDB queries include functions such as screening billed numbers that provides the ability to accept Collect or Third Number Billing calls and validation of Telephone Line Number based non-proprietary calling cards. The interface for the LIDB functionality is the interface between the BellSouth CCS network and other CCS networks. LIDB also interfaces to administrative systems. The administrative system interface provides Work Centers with an interface to LIDB for functions such as provisioning, auditing of data, access to LIDB measurements and reports.

13.4.2 Technical Requirements

13.4.2.1 Prior to the availability of a long-term solution for Number Portability, BellSouth shall enable MCIm to store in BellSouth's LIDB any subscriber Line Number or Special Billing Number record, (in accordance with the technical reference in Section 13.7.5) whether ported or not, for which the NPA-NXX or NXX-0/1XX Group is supported by that LIDB.

13.4.2.1.1 MCIm agrees that it will accept responsibility for telecommunications services billed by BellSouth for its billing and collection customers for MCIm's end user accounts which are resident in LIDB pursuant to this Agreement. MCIm authorizes BellSouth to place such charges on MCIm's bill from BellSouth and agrees that it

shall pay such charges. Charges for which MCIm hereby takes responsibility include, but are not limited to, collect and third number calls.

13.4.2.1.2 Charges for such services shall appear on a separate BellSouth bill page identified with the name of the entity for which BellSouth is billing the charge.

13.4.2.1.3 MCIm shall have the responsibility to render a billing statement to its end users for these charges, but MCIm's obligation to pay BellSouth for the charges billed shall be independent of whether MCIm is able or not to collect from MCIm's end users.

13.4.2.1.4 BellSouth shall not become involved in any disputes between MCIm and the entities for which BellSouth performs billing and collection. BellSouth will not issue adjustments for charges billed on behalf of an entity to MCIm. It shall be the responsibility of MCIm and the other entity to negotiate and arrange for any appropriate adjustments.

13.4.2.2 Prior to the availability of a long-term solution for Number Portability, BellSouth shall enable MCIm to store in BellSouth's LIDB any subscriber Line Number or Special Billing Number (in accordance with the technical reference in Section 13.7.5) record, whether ported or not, and NPA-NXX and NXX-0/1XX Group Records, belonging to an NPA-NXX or NXX-0/1 XX owned by MCIm.

13.4.2.3 Prior to the availability of a long-term solution for Number Portability, BellSouth shall enable MCIm to store in BellSouth's LIDB any subscriber Line Number or Special Billing Number (in accordance with the technical reference in Section 13.7.5) record, whether ported or not, regardless of the number's NPA-NXX or NXX-0/1XX.

13.4.2.4 BellSouth shall perform the following LIDB functions (i.e., processing of the following query types as defined in the technical reference in Section 13.7.5) for MCIm's subscriber records in LIDB:

13.4.2.4.1 Billed Number Screening (provides information such as whether the Billed Number may accept Collect or Third Number Billing calls); and

13.4.2.4.2 Nonproprietary Calling Card Validation.

13.4.2.5 BellSouth shall process MCIm's subscriber records in LIDB at least at parity with BellSouth subscriber records, with respect to other LIDB functions (as defined in the technical reference in Section 13.5). BellSouth shall indicate to MCIm what additional functions (if any) are performed by LIDB in their network.

13.4.2.6 Within two (2) weeks after a request by MCIm, BellSouth shall provide MCIm with a list of the subscriber data items which MCIm would have to provide in order to support each required LIDB function. The list shall indicate which data items are essential to LIDB function, and which are required only to support certain services. For each data item, the list shall show the data formats, the acceptable values of the data item and the meaning of those values.

13.4.2.7 BellSouth shall provide LIDB systems for which operating deficiencies that would result in calls being blocked, shall not exceed 30 minutes per year.

13.4.2.8 BellSouth shall provide LIDB systems for which operating deficiencies that would not result in calls being blocked shall not exceed 12 hours per year.

13.4.2.9 BellSouth shall provide LIDB systems for which the LIDB function shall be in overload (degraded performance in accordance with the technical reference in Section 13.7.5) no more than 12 hours per year. Such deficiency period is in addition to the periods specified in Sections 13.4.2.7 and 13.4.2.8 above.

13.4.2.10 BellSouth shall provide MCIm with the capability to provision (e.g., to add, update, and delete) NPA-NXX and NXX-0/IXX Group Records, and Line Number and Special Billing Number Records, associated with MCIm subscribers, directly into BellSouth's LIDB provisioning (i.e. service order) process.

13.4.2.11 Unless directed otherwise by MCIm, in the event that end user subscribers change their local service provider, BellSouth shall maintain subscriber data (for line numbers, card numbers, and for any other types of data maintained in LIDB) so that such subscribers shall not experience any interruption of

service due to the lack of such maintenance of subscriber data. In the event that end user subscribers change their local service provider, BellSouth shall use its best efforts to avoid service interruption in those situations where BellSouth has control over additions and deletions in the database as LIDB provider.

13.4.2.12 All additions, updates and deletions of MCIm data to the LIDB shall be solely at the direction of MCIm.

13.4.2.13 BellSouth shall provide, at parity, priority updates to LIDB for MCIm data upon MCIm's request (e.g., to support fraud protection).

13.4.2.14 BellSouth shall provide MCIm reports of all MCIm data in LIDB.

13.4.2.15 Pursuant to BellSouth procedures, BellSouth shall provide LIDB systems such that no more than 0.01% of MCIm subscriber records will be missing from LIDB, as measured by MCIm audits.

13.4.2.16 BellSouth shall perform backup and recovery of all of MCIm's data in LIDB at parity , including sending to LIDB all changes made since the date of the most recent backup copy.

13.4.2.17 BellSouth shall provide to MCIm access to LIDB measurements and reports at least at parity with the capability BellSouth has for its own subscriber records and that BellSouth provides to any other party.

13.4.2.18 BellSouth shall provide MCIm with LIDB reports of data which are missing or contain errors, as well as any misroute errors, within the time period reasonably negotiated between MCIm and BellSouth.

13.4.2.19 BellSouth shall prevent any access to or use of MCIm data in LIDB by BellSouth personnel or by any other party that is not authorized by MCIm in writing.

13.4.2.20 BellSouth shall provide MCIm performance of the LIDB Data Screening function, which allows a LIDB to completely or partially deny specific query originators access to LIDB data owned by specific data owners, (in accordance with the technical reference in Section 13.7.5) for Subscriber Data that is part of an NPA-NXX or NXX-0/1XX wholly or partially

owned by MCIm at least at parity with BellSouth Subscriber Data. BellSouth shall obtain from MCIm the screening information associated with LIDB Data Screening of MCIm data in accordance with this requirement.

13.4.2.21 BellSouth shall accept queries to LIDB associated with MCIm subscriber records, and shall return responses in accordance with the requirements of this Section 13.

13.4.2.22 BellSouth shall provide mean processing time at the LIDB within 0.50 seconds under normal conditions as defined in the technical reference in Section 13.7.5.

13.4.2.23 BellSouth shall provide processing time at the LIDB within 1 second for 99% of all messages under normal conditions as defined in the technical reference in Section 13.7.5.

13.4.2.24 BellSouth shall provide 99.9 % of all LIDB queries in a round trip response within 2 seconds.

13.4.2. 25 **LIDB Performance Measurements**: BellSouth shall provide LIDB performance that complies with the following standards:

13.4.2.25.1 BellSouth shall provide processing time at the Line Information Data Base ("LIDB") within I second for 99% of all messages under normal conditions as defined in the technical references in Section 13 of Attachment III.

13.4.2.25.2 BellSouth shall provide 99.9 % of all LIDB queries in a round trip within 2 seconds as defined in the technical references in Section 13 of Attachment III.

13.4.2.25.3 Once appropriate data can be derived from LIDB, BellSouth shall measure the following:

13.4.2.25.3.1 There shall be at least a 99.9.% reply rate to all query attempts.

13.4.2.25.3.2 Queries shall time out at LIDB no more than 0.1% of the time.

13.4.2.25.3.3 Group troubles shall occur for no more than 1% of all LIDB queries. Group troubles include responses other than:

13.4.2.25.3.3.1 Missing Group - The group is not defined in LIBD (when reply is returned "vacant" but there Is no active record for the 6-digit NPA-NXX group.)

13.4.2.25.3.3.2 Vacant Code - When a 6-digit NPA-NXX is defined as vacant in LIDB but no active line is associated with that NPA-NXX code.

13.4.2.25.3.4 Once MCIm requests LIDB screening pursuant to Section 13 of Attachment III, the Parties shall negotiate the appropriate performance standard for defects in LIDB Data Screening of responses.

13.4.2.26 BellSouth shall provide data in LIDB replies with no more than 2% unexpected data values. Per BellCore document SR334, because the majority of the error (i.e., fraud attempts, customer or operator misdialing, and CPE malfunctions are beyond the LIDB owner, Unexpected Data Value - PIN Mismatch should not be considered measurement of BellSouth LIDB quality. However, should this value exceed 2% MCIm and BellSouth will jointly agree if and when root cause analysis is necessary.

13.4.3 **Interface Requirements -**

BellSouth shall offer LIDB in accordance with the requirements of this subsection 13.4.3.

13.4.3.1 The interface to LIDB shall be in accordance with the technical reference in Section 13.7.3.

13.4.3.2 The CCS interface to LIDB shall be the standard interface described in Section 13.7.3.

13.4.3.3 The LIDB Data Base interpretation of the ANSI-TCAP messages shall comply with the technical reference in Section

13.7.4. Global Title Translation shall be maintained in the signaling network in order to support signaling network routing to the LIDB.

13.5 Toll Free Number Database

The Toll Free Number Database is a SCP that provides functionality necessary for toll free (e.g., 800 and 888) number services by providing routing information and additional so-called vertical features during call set-up in response to queries from SSPs. This Subsection 13.5 supplements the requirements of Subsection 13.2 and 13.7. BellSouth shall provide the Toll Free Number Database in accordance with the following:

13.5.1 Technical Requirements

13.5.1.1 BellSouth shall make the BellSouth Toll Free Number Database available for MCIm to query, from MCIm's designated switch including BellSouth unbundled local switching, with a toll-free number and originating information.

13.5.1.2 The Toll Free Number Database shall return carrier identification and, where applicable, the queried toll free number, translated numbers and instructions as it would in response to a query from a BellSouth switch.

13.5.1.3 The SCP shall also provide, at MCIm's option, such additional features as described in SR-TSV-002275 (BOC Notes on the BellSouth Networks, SR-TSV-002275, Issue 2, (Bellcore, April 1994)) as are available to BellSouth. These may include but are not limited to:

13.5.1.3.1 Network Management;

13.5.1.3.2 Subscriber Sample Collection, at charges set forth in Attachment I; and

13.5.1.3.3 Service Maintenance.

13.5.2 Interface Requirements

The signaling interface between the MCIm or other local switch and the Toll-Free Number database shall use the TCAP protocol as specified in the technical reference in Section 13.7.1, together with the signaling network interface as specified in the technical reference in Sections 13.7.2 and 13.7.6.

13.6 **Automatic Location Identification/Data Management System (ALI/DMS)**

The ALI/DMS Database contains subscriber information (including name, address, telephone information, and sometimes special information from the local service provider or subscriber) used to determine to which Public Safety Answering Point (PSAP) to route the call. The ALI/DMS database is used to provide more routing flexibility for E911 calls than Basic 911. This Subsection 13.6 supplements the requirements of Subsection 13.7.2 and 13.7.6. BellSouth shall provide the Emergency Services Database in accordance with the following:

13.6.1 **Technical Requirements**

13.6.1.1 BellSouth shall offer MCIm a data link to the ALI/DMS database or permit MCIm to provide its own data link to the ALI/DMS database.

BellSouth shall provide error reports from the ALI/DMS data base to MCIm after MCIm inputs information into the ALI/DMS data base. Alternately, MCIm may utilize BellSouth to enter through the service order process subscriber information into the data base on a demand basis, and validate subscriber information on a demand basis.

13.6.1.2 The ALI/DMS database shall contain the following subscriber information:

13.6.1.2.1 Name;

13.6.1.2.2 Address;

13.6.1.2.3 Telephone number; and

13.6.1.2.4 Other information as BellSouth deems appropriate

13.6.1.3 When BellSouth is responsible for administering the ALI/DMS database in its entirety, ported number NXXs entries for the ported numbers should be maintained unless MCIm requests otherwise and shall be updated if MCIm requests.

13.6.1.4 When Remote Call Forwarding (RCF) is used to provide number portability to the local subscriber and a remark

or other appropriate field information is available in the database, the shadow or "forwarded-to" number and an indication that the number is ported shall be added to the subscriber record.

13.6.1.5 If BellSouth is responsible for configuring PSAP features (for cases when the PSAP or BellSouth supports an ISDN interface) it shall ensure that CLASS Automatic Recall (Call Return) is not used to call back to the ported number.

13.6.2 **Interface Requirements -**

13.6.2.1 The interface between the E911 Switch or Tandem and the ALI/DMS database for MCIm subscribers shall meet industry standards.

13.7 Where Technically Feasible, SCPs/Databases shall be equal to or better than all of the requirements for SCPs/Databases set forth in the following technical references:

13.7.1 GR-246-CORE, Bell Communications Research Specification of Signaling System Number 7, ISSUE 1 (Bellcore, December 199);

13.7.2 GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP). (Bellcore, March 1994);

13.7.3 GR-954-CORE, CCS Network Interface Specification (CCSNIS) Supporting Line Information Database (LIDB) Service 6, Issue 1, Rev. 1 (Bellcore, October 1995);

13.7.4 GR-1149-CORE, OSSGR Section 10: System Interfaces, Issue 1 (Bellcore, October 1995) (Replaces TR-NWT-001149);

13.7.5 GR-1158-CORE, OSSGR Section 22.3: Line Information Database 6, Issue (Bellcore, October 1995)

13.7.6 GR-1428-CORE, CCS Network Interface Specification (CCSNIS) Supporting Toll Free Service (Bellcore, May 1995); and

13.7.7 "Bellcore Special Report SR-TSV-002275, IBOC Notes on the LEC Networks - Signaling".

13.8 **Advanced Intelligent Network (AIN) Access, Service Creation**

Environment and Service Management System (SCE/SMS) Advanced Intelligent Network Access

13.8.1 BellSouth will make all BellSouth SCP-based AIN retail services available for resale to MCIm. MCIm will be given the opportunity to develop competitive AIN 0.1 service applications via unbundled access to BellSouth's SCE/SMS. Where Technically Feasible, access to BellSouth resold services and MCIm created services may be supported from both MCIm and BellSouth local switches.

13.8.2 SCE/SMS AIN Access shall provide MCIm the ability to create service applications utilizing BellSouth AIN 0.1 service creation tools and deploy those applications via the BellSouth SMS to the BellSouth SCPs. Through traditional mechanisms, MCIm will be supported in provisioning switch triggers in BellSouth local switches which will access these applications. AIN SCE/SMS service development capabilities provided to MCIm will provide the same AIN 0.1 service development opportunities as presented to BellSouth in utilization of its basic AIN programmability tools (DesignEdge service). See Figure 7 below.

13.8.2.1 BellSouth will participate in standards bodies actively pursuing SMS/SCE standards. If standards are adopted in this area, BellSouth will seek to evolve its AIN SMS/SCE access toward such standards.

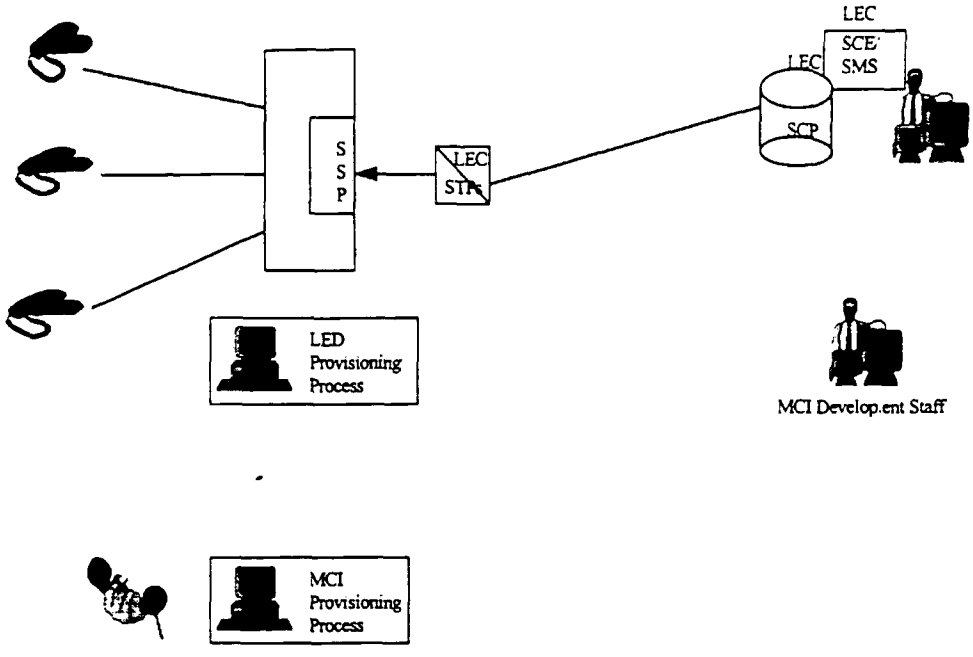


Figure 7

13.8.3 BellSouth's SCE/SMS offering shall provide access to SCE hardware, software, testing and technical support (e.g., help desk, system administrator) resources available to MCIm on a reasonable basis. Scheduling procedures shall provide MCIm equal priority access to these resources.

13.8.4 AIN access BellSouth shall allow for multi-user access with proper source code management and other logical security functions as specified in the Security section of this Agreement.

13.8.5 The BellSouth SCP shall partition and protect MCIm service logic and data from unauthorized access, execution or other types of compromise.

13.8.6 When MCI selects SCE/SMS AIN access, BellSouth shall provide adequate training, documentation, and technical support of MCIm development staff to reasonably expect successful application development. Such training shall address use of SCE/SMS AIN access and administrative functions, but will not include support for creation of a specific service application.

13.8.7 BellSouth will provide a secure controlled access environment in association with its internal utilization of AIN components. When

MCIm utilizes BellSouth's SCE/SMS, AIN Access will be provided via remote data connections (e.g., dial up, LAN, WAN) to published specifications.

13.8.8 When MCIm selects SCE/SMS AIN Access, BellSouth shall allow MCIm to download data forms and/or tables to the BellSouth SCP via the BellSouth SMS without intervention from BellSouth (e.g., service customization and subscriber subscription).

13.8.9 BellSouth shall offer, through the SCE/SMS AIN Access, access to the SCPs/Databases for control of MCIm end user functionality.

Section 14. Tandem Switching

14.1 **Definition**

Tandem Switching is the function that establishes a communications path between two switching offices through a third switching office (the tandem switch) including but not limited to CLEC, BellSouth, Independent telephone companies, IXCs and wireless carriers. BellSouth shall provide MCIm with selective routing via Line Class Codes, on a first-come, first-served basis. Further, MCIm and BellSouth shall continue to work with the appropriate industry groups to develop a long term solution for selective routing.

14.2 **Technical Requirements**

14.2.1 Tandem Switching shall have the same capabilities or equivalent capabilities as those described in Bell Communications Research TR-TSY-000540 Issue 2R2, Tandem Supplement, 6/I/90. The requirements for Tandem Switching include, but are not limited to, the following:

14.2.1.1 Tandem Switching shall provide signaling to establish a tandem connection;

14.2.1.2 Subject to Section 14.1, above, tandem Switching shall provide screening as jointly agreed to by MCIm and BellSouth, and routing on a per call basis as designated by MCIm;

14.2.1.3 Tandem Switching shall provide recording of all billable events designated by MCIm;

14.2.1.4 When Technically Feasible, and requested via BFR by

MCIm, Tandem Switching shall provide Advanced Intelligent Network triggers supporting AIN features;

14.2.1.5 Subject to Section 14.1, above, tandem Switching shall provide connectivity to Operator Systems as mutually agreed by MCIm and BellSouth;

14.2.1.6 Tandem Switching shall provide access to Toll Free number portability database as designated by MCIm;

14.2.1.7 Tandem Switching shall provide all trunk interconnections discussed under the "Network Interconnection" section (e.g., SS7, MF, DTMF, Dial Pulse, PRI-ISDN, DID, and CAMA-ANI (if appropriate for 911));

14.2.1.8 Tandem Switching shall provide connectivity to PSAPs where 911 solutions are deployed and the tandem is used for 911; and

14.2.1.9 Tandem Switching shall provide connectivity to transit traffic to and from other carriers.

14.2.2 Tandem Switching shall accept connections (including the necessary signaling and trunking interconnections) between end offices, other tandems, IECs, ICOs, CAPs and CLEC switches.

14.2.3 Tandem Switching shall provide local tandeming functionality between two end offices including two offices belonging to different CLEC's (e.g., between an MCIm end office and the end office of another CLEC).

14.2.4 Tandem Switching shall preserve CLASS/LASS features and Caller ID as traffic is processed. Additional signaling information and requirements are provided in Section 12.

14.2.5 Tandem Switching shall record billable events and send them to the area billing centers designated by MCIm. Billing requirements are specified in Attachment 8 of this Agreement.

14.2.6 Upon reasonable request, BellSouth shall perform routine testing and fault isolation on the underlying switch that is providing Tandem Switching and all its interconnections. When requested by MCIm, the results and reports of the testing shall be made immediately available to MCIm.

14.2.7 When requested by MCIm, BellSouth shall provide performance data regarding traffic characteristics or other measurable elements to MCIm for review.

14.2.8 Tandem Switching shall be capable of controlling congestion using capabilities such as Automatic Congestion Control (e.g. choke trunk groups) and Network Routing Overflow. Congestion control provided or imposed on MCIm traffic shall be at parity with controls being provided or imposed on BellSouth traffic (e.g., BellSouth shall not block MCIm traffic in a discriminatory manner.

14.2.9 Subject to Section 14.1, above, tandem Switching shall route calls to BellSouth or MCIm endpoints or platforms (e.g., operator services and PSAPs) on a per call basis as designated by MCIm. Detailed primary and overflow routing plans for all interfaces available within the BellSouth switching network shall be mutually agreed to by MCIm and BellSouth. Such plans shall meet MCIm requirements for routing calls through the local network.

14.2.10 Tandem Switching shall process originating toll-free traffic received from an MCIm local switch.

14.2.11 In support of AIN triggers and features, Tandem Switching, when Technically Feasible and requested via BFR by MCIm, shall provide SSP capabilities when these capabilities are not available from the Local Switching Network Element.

14.2.12 The Local Switching and Tandem Switching functions may be combined in an office. If this is done, both Local Switching and Tandem switching shall provide all of the functionality required of each of those Network Elements in this Agreement.

14.3 **Interface Requirements**

14.3.1 Tandem Switching shall provide interconnection to the E911 PSAP where the underlying Tandem is acting as the E911 Tandem.

14.3.2 Tandem Switching shall interconnect, with direct trunks, to all carriers with which BellSouth interconnects.

14.3.3 BellSouth shall provide all signaling necessary to provide Tandem Switching with no loss of feature functionality.

14.3.4 Tandem Switching shall interconnect with MCIm's switch, using two-way trunks, for traffic that is transiting via the BellSouth network to

interLATA or intraLATA carriers. At MCIm's request, Tandem Switching shall record and keep records of traffic for billing.

14.3.5 Tandem Switching shall provide an alternate final routing pattern for MCIm traffic overflowing from direct end office high usage trunk groups.

14.4 Tandem Switching shall meet or exceed (i.e., be more favorable to MCIm) each of the requirements for Tandem Switching set forth in the following technical references:

14.4.1 Bell Communications Research TR-TSY-000540 Issue 2R2, Tandem Supplement, 6/l/90;

14.4.2 GR-905-CORE covering CCSNIS;

14.4.3 GR-1429-CORE for call management features; and GR-2863-CORE and GR-2902-CORE covering CCS AIN interconnection.

Section 15. Additional Requirements

This Section 15 of Attachment III sets forth the additional requirements for unbundled Network Elements which BellSouth agrees to offer to MCIm under this Agreement.

15.1 **Cooperative Testing**

15.1.1 **Definition**

Cooperative Testing means that BellSouth shall cooperate with MCIm upon request or as needed to (1) ensure that the Network Elements and Ancillary Functions and additional requirements being provided to MCIm by BellSouth are in compliance with the requirements of this Agreement, (2) test the overall functionality of various Network Elements and Ancillary Functions provided by BellSouth to MCIm in combination with each other or in combination with other equipment and facilities provided by MCIm or third parties, and (3) ensure that all operational interfaces and processes are in place and functioning properly and efficiently for the provisioning and maintenance of Network Elements and Ancillary Functions and so that all appropriate billing data can be provided to MCIm.

15.1.2 **Requirements**

Within ninety (90) days of the Effective Date of this Agreement, MCIm

and BellSouth will agree upon a process to resolve technical issues relating to interconnection of MCIm's network to BellSouth's network and Network Elements and Ancillary Functions. The agreed upon process shall include procedures for escalating disputes and unresolved issues up through higher levels of each company's management. If MCIm and BellSouth do not reach agreement on such a process within ninety (90) days, any issues that have not been resolved by the parties with respect to such process shall be submitted to the procedures set forth in Part A Section 23 of this Agreement unless both parties agree to extend the time to reach agreement on such issues.

15.1.2.1 BellSouth shall provide MCIm access for testing at any interface between a BellSouth Network Element or combinations and MCIm equipment or facilities. Such test access shall be sufficient to ensure that the applicable requirements can be tested by MCIm. This access shall be available seven (7) days per week, 24 hours per day.

15.1.2.2 MCIm may test any interfaces, Network Elements or Ancillary Functions and additional requirements provided by BellSouth pursuant to this Agreement.

15.1.2.3 BellSouth shall provide engineering data as requested by MCIm for the loop components as set forth in Sections 2, 3 and 4 of this Attachment which MCIm may desire to test. Such data shall include equipment engineering and cable specifications, signaling and transmission path data.

15.1.2.4 Upon MCIm's request, to the extent required by applicable Commission orders or by subsequent agreement, BellSouth shall provide to MCIm any office records, central office layout and design records and drawings, system engineering and other applicable documentation pertaining to a Network Element or Ancillary Function or the underlying equipment that is then providing a Network Element or Ancillary Function to MCIm.

15.1.2.5 BellSouth shall provide to MCIm upon request, all applicable test results, from BellSouth testing activities on a Network Element or Ancillary Function or Additional Requirement or the underlying equipment providing a Network Element or Ancillary Function or Additional Requirements. MCIm may review such testing results and may notify BellSouth of any deficiencies that are detected.

15.1.2.6 BellSouth shall temporarily provision MCIm designated Local Switching features for testing. Within ninety (90) days of the Effective Date of this Agreement, MCIm and BellSouth shall mutually agree on the procedures to be established between BellSouth and MCIm to expedite such provisioning processes for feature testing.

15.1.2.7 Upon MCIm's request, BellSouth shall provide technical staff to meet with MCIm representatives to provide required support for Cooperative Testing.

15.1.2.8 Dedicated Transport and Loop Feeder may expérience alarm conditions due to in-progress tests. BellSouth shall not remove such facilities from service without obtaining MCIm's prior approval.

15.1.2.9 BellSouth shall get acceptance from MCIm prior to conducting tests or maintenance procedures on Network Elements or Ancillary Functions or on the underlying equipment that is then providing a Network Element or Ancillary Function, that may cause a service interruption or degradation of service

15.1.2.10 BellSouth shall provide a single point of contact to MCIm that is available 7 days per week, 24 hours per day for trouble status, sectionalization, resolution, escalation, and closure. Such staff shall be adequately skilled to allow expeditious problem resolution.

15.1.2.11 BellSouth shall provide to MCIm electronic access to 105 responders, 100-type test lines, or 102-type test lines associated with any circuits under test.

15.1.2.12 BellSouth shall participate in Cooperative Testing with MCIm upon MCIm's request to test any operational interface or process used to provide Network Elements, Ancillary Functions or Services to MCIm.

15.1.2.13 MCIm and BellSouth shall endeavor to complete Cooperative Testing as stated in Attachment 8.

15.1.2.14 BellSouth shall participate in Cooperative Testing requested by MCIm whenever it is deemed necessary by MCIm to insure service performance, reliability and subscriber serviceability.

15.1.2.15 MCIm may accept or reject the Network Element ordered by MCIm if, upon completion of cooperative acceptance testing, the tested Network Element does not meet the requirements stated herein.

15.1.2.16 BellSouth shall provide real-time, remote data access, where available to performance monitoring and alarm data on events affecting (or potentially affecting) MCIm's traffic on BellSouth's network elements.

15.2 **Performance**

15.2.1 **Scope**

This section addresses performance requirements for Network Elements and Ancillary Functions to provide local service. It includes requirements for the reliability and availability of Network Elements and Ancillary Functions, and quality parameters such as transmission quality (analog and digital), and speed (or delay). In addition, an overview of service performance requirements is given. These requirements shall apply to the extent they are in conformance with, and applicable to BellSouth under, accepted industry standards, and MCI may request more stringent performance standards, if Technically Feasible, via the bona fide request process.

15.2.1.1 The General Performance Requirements in this section apply to all aspects of Network Elements and Ancillary Functions. Additional requirements are given in this performance section and in the individual Network Elements sections.

15.2.1.2 BellSouth shall work cooperatively with MCIm to determine appropriate performance allocations across Network Elements.

15.2.3 BellSouth shall provide performance equal to or better than all of the requirements set forth in the following technical references:

15.2.3.1 **Bell Communications Research, Inc. Documents**

15.2.3.1.1 FR-64, *LATA Switching Systems Generic Requirements (LSSGR).* This document contains 117 Technical References and Generic Requirements. Sections provide the requirements for local switching

systems (also referred to as end offices) that serve subscribers' lines. Some modules of the LSSGR are also referenced separately in this document.

15.2.3.1.2 TR-NWT-000499, Issue 5, Rev 1, April 1992, *Transport Systems Generic Requirements (TSGR): Common Requirements.*

15.2.3.1.3 TR-NWT-000418, Issue 2, December 1992, *Generic Reliability Assurance Requirements For Fiber Optic Transport Systems.*

15.2.3.1.4 TR-NWT-000057, Issue 2, January 1993, *Functional Criteria for Digital Loop Carriers Systems.*

15.2.3.1.5 TR-NWT-000507, Issue 5, December 1993, *LSSGR - Transmission, Section 7.*

15.2.3.1.6 GR-303-CORE, Issue 1, September 1995, *Integrated Digital Loop Carrier System Generic Requirements, Objectives, and Interface.*

15.2.3.1.7 GR-334-CORE, Issue 1, June 1994, *Switched Access Service: Transmission Parameter Limits and Interface Combinations.*

15.2.3.1.8 TR-NWT-000335, Issue 3, May 1993, *Voice Grade Special Access Services - Transmission Parameter Limits and Interface Combinations.*

15.2.3.1.9 TR-TSY-000529, Issue 2, July 1987, *Public Safety - LSSGR.*

15.2.3.1.10 GR-1158-CORE, Issue 2, October 1995, *OSSGR Section 22.3: Line Information Database.*

15.2.3.1.11 TR-TSY-000511, Issue 2, July 1987, *Service Standards, a Module (Section 11) of LATA Switching Systems Generic Requirements (LSSGR, FR-NWT-000064).*

15.2.3.1.12 TR-NWT-000393, January 1991, *Generic Requirements for ISDN Basic Access Digital Subscriber Lines.*

15.2.3.1.13 TR-NWT-000909, December 1991, *Generic Requirements and Objectives for Fiber In The Loop Systems.*

15.2.3.1.14 TR-NWT-000505, Issue 3, May 1991, *LSSGR Section 5, Call Processing.*

15.2.3.1.15 FR-NWT-000271, 1993, *Operator Services Systems Generic Requirements (OSSGR).*

15.2.3.1.16 TR-NWT-001156, Issue 2, July 1993, *OSSGR Operator Services Systems Generic Requirements, Section 21, Operator Subsystem.*

15.2.3.1.17 SR-TSY-001 171, Issue 1, January 1989, *Methods and Procedures for System Reliability Analysis.*

15.2.3.1.18 Bellcore *Telecommunications Transmission Engineering*, 3rd Ed, 1990.

15.2.3.2 **ANSI Standards**

15.2.3.2.1 ANSI T1.512-1994, Network Performance - Point-to-Point Voice-Grade Special Access Network Voiceband Data Transmission Objectives.

15.2.3.2.2 ANSI T1.506-1990, Network Performance - Transmission Specifications for Switched Exchange Access Network.

15.2.3.2.3 ANSI T1.508-1992, Telecommunications - Network Performance - Loss Plan for Evolving Digital Networks. Also supplement T1.508a-1993.

15.2.3.2.4 ANSI T1.101-1994, Digital Synchronization Network Plan.

15.2.3.3 **TIA/EIA Standards**

15.2.3.3.1 Requirements not specifically addressed here shall be found in the documents listed in Electronic Industries Association/Telecommunications Industries Association Standards and Engineering Publications.

15.2.3.3.2 TIA/EIA TSB-37A, Telephone Network

Transmission Model for Evaluating Modem Performance.

15.2.3.3.3 TIA/EIA TSB-38, Test Procedure for Evaluation of 2-wire 4 kHz Voiceband Duplex Modems.

15.2.3.4 **IEEE Standards**

15.2.3.4.1 IEEE Standard 743-1984, IEEE Standard Methods and Equipment for Measuring Transmission Characteristics of Analog Voice Frequency Circuits.

15.2.3.4.2 ANSI/IEEE Standard 820-1984, Telephone Loop Performance Characteristics.

15.2.4 **Services and Capabilities**

15.2.4.1 All Network Elements shall provide performance sufficient, in combination with other Network Elements, to provide the following applications in accordance with the requirements of this document:

15.2.4.1.1 All types of voice services.

15.2.4.1.2 Voice-band data modem connections up to 9.6 kbps and up to and including 28.8 kbps V.34 when available.

15.2.4.1.3 All types of FAX transmissions up to and including 14.4 Kbps group 3.

15.2.4.1.4 All CLASS/LASS features.

15.2.4.1.5 All Operator Systems.

15.2.4.2 The following capabilities shall be provided as applicable:

15.2.4.2.1 ISDN BRI

15.2.4.2.2 ISDN PRI

15.2.4.2.3 Switched Digital Data

15.2.4.2.4 Non-Switched Digital Data

15.2.4.2.5 Any types of Video applications that a subscriber may order

15.2.4.2.6 Any Coin Services the subscriber may order

15.2.4.2.7 Frame Relay and ATM

15.2.4.2.8 Private Line Services

15.2.5 Specific Performance Requirements for Network Elements and Ancillary Functions

15.2.5.1 The following sections itemize performance parameters for Network Elements and Ancillary Functions. BellSouth shall provide performance equal to or better than all of the requirements set forth in this Section. Unless noted otherwise, requirements and objectives are given in terms of specific limits. This means that all tests (acceptance and ongoing performance) shall meet the limit(s) to satisfy the requirement.

15.2.5.2 **Performance Allocation**

15.2.5.2.1 Transmission path impairments may be classified as either analog or digital, and will depend on the nature of the signal transmitted across the Network Element. Analog impairments are introduced on any analog portion of the loop, typically between the NID portion of Loop Distribution and the analog to digital (A/D) conversion, and are usually correlated with the length of the physical plant. Digital impairments are introduced by A/D conversion and by interfaces between digital Network Elements. In addition, noise can be introduced by either analog transmission or the A/D conversion.

15.2.5.3 **Loop Combination Architecture Constraints**

15.2.5.3.1 The following constraints will limit not only the variety of Loop Combination architectures that may be considered, but also the architectures BellSouth may consider to deliver any Ancillary Function or Network Element. These constraints apply to the entire path between the NID portion of Loop Distribution and the BellSouth switch. Any exceptions to these restrictions

shall be specifically requested or approved by MCIm in writing.

15.2.5.3.1.1 Left Blank Intentionally.

15.2.5.3.1.2 No more than 1, 2-to-4-wire hybrid.

15.2.5.3.1.3 No voice compression.

15.2.5.3.1.4 No echo canceled or suppressers.

15.2.5.3.1.5 One digital loss pad per PBX.

15.2.5.3.1.6 No digital gain.

15.2.5.3.1.7 No additional equipment that might significantly increase intermodulation distortion.

15.2.5.4 **Transmission Impairments**

15.2.5.4.1 **Analog Impairments**

15.2.5.4.1.1 Analog impairments are those introduced on portions of the end-to-end circuit on which communications signals are transmitted in analog format. These portions of the transmission path would typically be between NID and an A/D conversion, most commonly on the metallic loop. The performance on the analog portion of a circuit is typically inversely proportional to the length of that circuit.

15.2.5.4.1.2 **Loss**

15.2.5.4.1.2.1 Electrical loss is measured using a 1004 Hz 0.0 DB one Milliwatt 900 ohm test tone.

15.2.5.4.1.2.2 Off-hook electrical loss between the NID and the switch shall be no more than 8.0 dB for any line, and the mean value for all lines shall be 3.5 dB "0.5 dB. On-hook electrical loss between the NID and the switch shall be no more than 4.0 dB above the off-hook electrical loss for

any line.

15.2.5.4.1.3 **Idle Channel Circuit Noise**

15.2.5.4.1.3.1 Idle channel circuit noise (C-message) is added by analog facilities, by the A/D conversion of signals, by digital processing equipment (e.g., echo cancelers, digital loss pads), robbed bit signaling, and errors on digital facilities.

15.2.5.4.1.3.2 Idle channel circuit noise shall be less than or equal to 18 dBrnC.

15.2.5.4.1.4 **Talker Echo**

15.2.5.4.1.4.1 The primary source of echo is improper impedance-matching at the 2-to-4 wire hybrid in the BellSouth network. The impact on subscriber perception is a function of both echo return loss and delay.

15.2.5.4.1.4.2 Echo Return Loss (ERL) shall be greater than 26 dB to a standard termination (900 ohms, 2.16 μFd), and greater than 14 dB to a telephone set off-hook. Singing Return Loss (SRL) shall be greater than 2l dB to a standard termination, and greater than 11 dB to a telephone set off-hook.

15.2.5.4.1.5 **Listener Echo**

Listener echo is a double reflection of a transmitted signal at two different impedance mismatches in the end-to-end connection. While in extreme cases it can degrade voice transmission performance, listener echo is primarily an issue for voiceband data. The requirements on Talker Echo shall apply to Listener Echo.

15.2.5.4.1.6 **Propagation and Processing Delay**

15.2.5.4.1.6.1 Propagation delay is the delay involved in transmitting information from one location to another. It is caused by processing delays of equipment in the network and delays associated with traveling across transmission facilities.

15.2.5.4.1.6.2 BellSouth shall cooperate with MCIm to limit total service propagation and processing delay to levels at parity with that within the BellSouth local network.

15.2.5.4.1.7 **Signal-to-Noise Ratio**

15.2.5.4.1.7.1 The Signal-to-Noise Ratio (S/N) is a critical parameter in determining voiceband data performance. It is typically measured with a 1004 Hz tone.

15.2.5.4.1.7.2 BellSouth must provide on the Loop Combination a signal-to-noise ratio of at least 37 dB between the NID and the end office.

15.2.5.4.1.8 **C-Notched Noise**: The requirements for Signal-to-Noise Ratio shall apply to C-Notched Noise.

15.2.5.4.1.9 **Attenuation Distortion**

15.2.5.4.1.9.1 Attenuation distortion, also known as frequency distortion or gain slope, measures the variations in loss at different frequencies across the voice frequency spectrum (200 Hz - 3400 Hz). It is measured by subtracting the loss at 1004 Hz from the loss at the frequency of interest.

15.2.5.4.1.9.2 Attenuation distortion from the NID to the switch shall be within the range +/-0.5 dB for frequencies between 304 and 3004 Hz; from the switch to NID attenuation distortion shall be within the range +/- 0.5 dB for frequencies between

204 Hz and 3004 Hz. In addition, attenuation distortion shall remain within the range +1 dB/-3 dB for frequencies between 200 Hz and 3500 Hz.

15.2.5.4.1.10 **Envelope Delay Distortion**

15.2.5.4.1.10.1 Envelope Delay Distortion (EDD) measures the difference in transit time of signals at different frequencies. EDD is measured relative to the transit time of a 1704 Hz tone, and is given in microseconds. EDD is used as an approximation of the group delay of the channel.

15.2.5.4.1.10.2 EDD shall be: 1704 Hz to 604 Hz — ≤ 350 μsec.; 1704 Hz to 2804 Hz — ≤ 195 μsec.; 1704 Hz to 204 Hz — ≤ 580 μsec.; 1704 Hz to 3404 Hz — ≤ 400 μsec.

15.2.5.4.1.11 **Phase Jitter**

15.2.5.4.1.11.1 Phase jitter measures the unwanted angular modulation of a signal. It is caused by noise or the actual modulation of the signal by another unwanted signal. It displaces the zero crossings of a signal. It is measured in terms of peak-to-peak deviations of a 1004 Hz tone from its nominal zero crossings, and in a particular frequency band (200-300 HZ and either 4-300 Hz or 2-300 Hz). Phase jitter impacts voiceband data performance and can make modems more susceptible to other impairments, including noise.

15.2.5.4.1.11.2 From the NID to the interexchange carrier point of termination, phase jitter shall be < 1.5E point-to-point in the 0-300 Hz band, and < 1.8E point-to-point in the 4-300 Hz band.

15.2.5.4.1.12 **Amplitude Jitter**

15.2.5.4.1.12.1 Amplitude jitter is any deviation of the peak value of a 1004 Hz signal from its nominal value. Excessive amounts can impair voiceband data performance. It is primarily caused by noise but can also be caused by phase jitter, gain hits, or single frequency interference.

15.2.5.4.1.12.2 In NID-interexchange carrier point of termination, ≤ 2.5% of amplitude jitter is permitted in the 20-300 Hz band and ≤ 2.9% in the 4-300 Hz band.

15.2.5.4.1.13 **Intermodulation Distortion**

15.2.5.4.1.13.1 Intermodulation distortion (IMD) measures non-linear distortions of a signal. It compares the power of harmonic tones to the power of the transmitted tones. It is measured for both the 2nd and 3rd harmonics of the transmitted tones. IMD is caused by compression or clipping and can impair voiceband data performance.

15.2.5.4.1.13.2 Both 2nd and 3rd order IMD between the NID and end office must be ≥ 52 dB.

15.2.5.4.1.14 **Impulse Noise**

15.2.5.4.1.14.1 Impulse noise is a sudden and large increase in noise on a channel for a short duration of time. Impulse noise is measured as a count of the number of times a noise threshold is exceeded during a given time period (typically 5 or 15 minutes). It is caused by protection switching, maintenance activities, electromechanical switching systems, digital transmission errors, and line coding mismatches. Impulse noise sounds like

clicking noises or static on voice connections. Impulse noise impairs voiceband data performance.

15.2.5.4.1.14.2 The NID to interexchange carrier point of termination portions of connections shall introduce no impulse noise events within 6 dB of the received signal power on 93% of all 15 minute connections. In addition, there shall be no more than 1 impulse noise event within 6 dB of the received signal power during any 30-minute period.

15.2.5.4.1.15 **Phase Hits**

15.2.5.4.1.15.1 Phase hits are a sudden change in the phase of a signal lasting at least 4 msec. Phase hits are measured using a threshold which indicates how much the phase of the signal has changed with respect to its nominal phase. Phase hits are caused by protection switching and slips or other synchronization errors. Phase hits can impair voiceband data performance.

15.2.5.4.1.15.2 Between the NID and interexchange carrier point of termination, 99.75% of all 15-minute connections shall have no phase hits exceeding 10E. In addition, there shall be no more than 1 phase hit exceeding 10E in any 30-minute period.

15.2.5.4.1.16 **Gain Hits**

15.2.5.4.1.16.1 Gain hits are sudden changes in the level of a signal that last at least 4 msec. Gain hits are measured against a threshold of typically 2-5 dB relative to the signal's nominal level. Gain hits are usually caused by protection switches and can impair voiceband data performance.

15.2.5.4.1.16.2 Between the NID and the interexchange carrier point of termination, 99.5% of all 15-minute connections shall have no gain hits exceeding 3 dB. In addition, there shall be no more than 1 gain hit exceeding 3 dB in any 30-minute period.

15.2.5.4.1.17 **Dropouts**

15.2.5.4.1.17.1 Dropouts are drops in the level of a signal of 12 dB or more for at least 4 msec. They are caused by protection switching events, radio fading, and conditions causing digital carrier systems to lose frame. Dropouts are critical for voiceband data performance but, if severe enough, will also affect voice quality.

15.2.5.4.1.17.2 Between the NID and the interexchange carrier point of termination, 99.9% of all 15-minute connections shall have no dropouts and in addition, no connection shall suffer more than 1 dropout in any 60-minute period.

15.2.5.4.1.18 **Frequency Shift**

15.2.5.4.1.18.1 Frequency shift measures any frequency changes that occur when a signal is transmitted across a channel. It is typically measured using a 1004 Hz tone. Frequency shift has very little impact on voice or voiceband data performance; however, round-trip frequency shifts can affect the ability of echo cancelers to remain converged.

15.2.5.4.1.18.2 No more than 0.2 Hz frequency shift shall be on any connection. In addition, 99.5% of all calls shall have frequency shift < 0.1 Hz.

15.2.5.4.1.19 **Crosstalk**

15.2.5.4.1.19.1 Crosstalk is the presence of signals from other telephone connections on a circuit. Crosstalk can be either intelligible, when speech from other connections can be heard and understood, or unintelligible. Crosstalk is caused by inter-channel interference on the transmission system. Crosstalk is difficult to measure: it requires correlating signals on different circuits or using human listeners to identify its presence. Trouble reports may be used to estimate the probability of crosstalk.

15.2.5.4.1.19.2 99% of Loop Combinations shall have probability ≤ 0.1% of experiencing crosstalk exceeding -65 dBm0.

15.2.5.4.1.20 **Clipping**

15.2.5.4.1.20.1 Clipping occurs when part of a transmitted signal is dropped and does not reach the receiving portion on a connection. It can be caused by Digital Speech Interpolation (DSI) equipment used in Digital Circuit Multiplication Systems (DCMS) which increase the amount of traffic that transmission facilities carry, and by echo cancelers or echo suppressers.

15.2.5.4.1.20.2 No clipping incidents shall occur on any call.

15.2.5.4.2 **Digital Impairments**

Digital impairments occur in the signal wherever it is transmitted in digital format. These errors are usually introduced upon conversion of the signal from analog to digital, as well as at interfaces between digital components. While many digital impairments have little impact on subjective voice quality, they can impact voiceband data performance.

15.2.5.4.2.1 **Signal Correlated Distortion**

15.2.5.4.2.1.1 Signal correlated distortion (SCD) is unwanted noise or distortion introduced into a signal through the conversion of a signal from analog to digital format or through digital processing that changes the transmitted signal. SCD affects performance when a sign is being transmitted. The primary sources of SCD are signal encoders, echo cancelers, digital loss pads, and robbed bit signaling. SCD affects both voice and voiceband data performance.

15.2.5.4.2.1.2 The NID-to-end-office connection shall allow:

15.2.5.4.2.1.2.1 A maximum of 1 A/D conversion, using 64 Kbps μlaw (μ255) PCM;

15.2.5.4.2.1.2.2 No voice compression;

15.2.5.4.2.1.2.3 No echo cancellation; and

15.2.5.4.2.1.2.4 Robbed bit signaling only if SS7 or ISDN are not used.

15.2.5.4.2.2 **Slips**

15.2.5.4.2.2.1 Slips occur when a frame of digital data is either deleted or repeated because of differences in the clocks used to synchronize digital facilities. Slips sound like clicks or pops on voice calls and have major impact on voiceband data performance.

15.2.5.4.2.2.2 The NID-to-interexchange carrier point of termination portion of connections shall have fewer than 0.45 slips every 24 hours on average.

15.2.5.4.2.3 **Digital Timing Jitter and Wander**

15.2.5.4.2.3.1 Digital timing jitter is the unwanted phase modulation of digital signals at rates above 10 Hz. Wander is the unwanted phase modulation of digital signals at rates below 10 Hz. Digital timing jitter is caused by imperfections in the timing recovery process of repeaters and the stuffing synchronization process used by multiplexer/demultiplexers. Wander is caused by slowly varying changes in digital signal phase due to clock frequency offset and drift, changes in propagation delay of terrestrial facilities due to temperature changes and changes in the distance of satellites from the earth. These events have a major impact on voiceband data performance.

15.2.5.4.2.3.2 The maximum digital timing jitter allowed in the 10 Hz to 8 kHz frequency band at any network interface or any terminal equipment in the network is 5 Unit Intervals (UI). The maximum digital timing jitter allowed in the 8 kHz to 40 kHz frequency band is 0.1 UI. The objective for wander is less than 28 UI at any network interface or terminal equipment.

15.2.5.4.2.4 **DS-1 Errored Seconds**

15.2.5.4.2.4.1 An Errored Second (ES) on a DS-1 facility is any second during which at least 1 bit is in error. The impact of an ES on performance depends on the number of errors that occur during a second. Typically, voice performance is not significantly impacted by ES but they can cause errors in voiceband data transmissions.

15.2.5.4.2.4.2 Each BellSouth network shall have less than 20 ESs per 24 hour

period.

15.2.5.4.2.5 **DS-1 Severely Errored Seconds**

15.2.5.4.2.5.1 A severely Errored Second (SES) is any second during which a DS-1 has an error rate exceeding 0.001. An SES can be caused by a loss of framing, a slip, or a protection switch. SESs have impacts on both voice and voiceband data performance. For voice, a SES will sound like a burst of noise or static. SESs that occur during a voiceband data transmission cause a significant burst of errors and can cause modems to retrain.

15.2.5.4.2.5.2 The digital portion of each NID to POP connection shall have less than 2 SESs per 24 hour period.

15.2.5.4.2.6 **Short Failure Events**

15.2.5.4.2.6.1 A Short Failure Event (SFE) is a Loss of Frame (LOF) event of less than two minutes' duration. An LOF event is declared when, on detection of a Loss of Signal (LOS) or Out-of-Frame (OOF), a rise-slope-type integration process starts that declares a LOF after 2.5"0.5 sec. of continuous LOS or OOF. If the LOS or OOF is intermittent the integration process shall decay at a slope of 1/5 the rise slope during the period when the signal is normal. Thus, if the ratio of a LOS or OOF to a normal signal is greater than 1/2, a LOF will be declared. A LOS condition shall be declared when the Network Channel Terminating Equipment has determined that 175"75 successive pulse positions with no pulses of either positive or negative polarity have occurred. An OOF condition shall be declared when either Network equipment or Digital Terminal Equipment detects errors in the framing pattern.

15.2.5.4.2.6.2 There shall be fewer than 1 SFE per month.

15.2.5.5 **Service Availability and Reliability**

Availability refers to the time period during which the service is up and usable for its intended purpose. Reliability refers to the probability that a task will be completed successfully, given that it is successfully begun.

15.2.5.5.1 **Blocked Calls**

15.2.5.5.1.1 Blocking is the fraction of call origination attempts denied service during a stated measurement period. Blocking occurs because of competition for limited resources within the network.

15.2.5.5.1.2 For intraLATA toll service and local exchange service, the blocking level from originating (NID) to terminating NID shall not exceed 1% in any hour, except under conditions of service disruption. For access to or egress from a long distance network, the blocking rate shall not exceed 0.5% in any hour.

15.2.5.5.2 **Downtime**

Downtime is the period of time that a system is in a failed state.

15.2.5.5.2.1 The average downtime for all subscriber Loop Combinations shall be less than 49 minutes per year. The maximum downtime for 99% of all subscriber Loop Combinations shall be less than 74 minutes per year.

15.2.5.5.2.2 The average downtime for an end office switch shall be less than 3 minutes per year. The average downtime for individual trunks shall be less than 28 minutes per year. The average downtime for digital trunk groups shall be less than 20 minutes per year. The average downtime for an individual line appearance at the switch shall be less than 28 minutes per year. The

average downtime for a Remote Terminal (RT) shall be less than 17 minutes per year. The average downtime for an individual line on a Remote Terminal (RT) shall be less than 13 minutes per year.

15.2.5.5.2.3 The mean time to repair (MTTR) of any equipment at an attended site shall be less than 3 hours. The mean time to repair (MTTR) of any equipment at an unattended site shall be less than 4 hours. 95% of all repairs to the network interface (NID) shall be completed within 24 hours.

15.2.5.5.2.4 There shall be no downtime due to power failures at the switch.

15.2.5.5.2.5 The probability of a stable call being cut off shall be less than 20 cutoffs per one million 1 minute calls.

15.2.5.5.2.6 The rate of ineffective machine attempts at the end office shall be less than 0.0005 (5 failures per 10,000 call attempts).

15.2.5.5.2.7 BellSouth shall meet all requirements for private line services in TR-NWT-000335, ANSI T1.512-1994.

15.2.5.5.3 **Dial Tone Delay**

15.2.5.5.3.1 Dial-Tone Delay is the time period between a subscriber off-hook and the receipt of dial tone from an originating end office. Dial-Tone Delay has a significant effect on subscriber opinion of service quality.

15.2.5.5.3.2 The average dial-tone delay shall not exceed 1.5% of calls delayed more than 3 seconds. At most 20% of calls during the high day busy hour (HDBH) shall experience dial-tone delay greater than 3 seconds.

15.2.5.5.4 **Dial Tone Removal**

15.2.5.5.4.1 Dial tone removal is the time

between recognition of the first address digit to the removal of dial tone on the line.

15.2.5.5.4.2 The maximum dial tone removal interval shall be ≤500 milliseconds.

15.2.5.5.5 **Post Dial Delay**

15.2.5.5.5.1 Post Dial Delay (PDD) is the amount of time a caller must wait after entering or dialing the last digit of a Destination Telephone Number (DTN) before hearing a valid audible network response. The PDD for an end user is measured from the time the caller has pressed or dialed the last digit of a DTN until receipt of an audible network response.

15.2.5.5.5.2 The requirements given reflect an end-to-end CCS7 protocol for MCIm end users. Where a mixture of CCS7 and inband (MF) signaling protocols are employed, an increase in the PDD can be expected.

15.2.5.5.5.2.1 **PDD 1 - A - Intra LSO**

15.2.5.5.5.2.1.1 Intra-LSO calls do not employ external signaling protocols. The PDD for intra-LSO calls flows are dependent upon the processor cycle time and traffic load conditions. This PDD is assumed to be between subscribers on the same LSO, between the Remote Switch Modules (RSMs) on the same Host, or between an RSM and Host subscribers.

15.2.5.5.5.2.1.2 The objective for intra-LSO PDD is less than 310 milliseconds for 50% of all calls and less than 460 milliseconds for 95% of all calls.

15.2.5.5.5.2.2 **PDD1 - B - LSO to Another Local LSO**

15.2.5.5.5.2.2.1 The signaling protocols

from an LSO to another LSO are assumed to employ out-of-band Common Channel Signaling System 7 (CCS7) format. Local calls, that is, calls from an LSO to another LSOs are assumed to have no more than one pair of Signaling Transfer Point Switches (STPs) and no more than one data base dip.

15.2.5.5.5.2.2.2 This PDD is expected to be better than the MCIT Long Distance objective with an average PDD of ≤ 8.70 seconds with 95% ≤1.34 seconds.

15.2.5.5.5.2.3 **PDD1 - C - MCIm LSO to Other LSO**

15.2.5.5.5.2.3.1 Calls from an MCIm LSO to other LSOs are dependent upon the interface agreements between MCIm and the LSO service provider and may employ CCS7, inband (MF) or a combination of both protocols.

15.2.5.5.5.2.3.2 Calls from an MCIm LSO to another LSO via the Public Switched Telecommunications Network (PSTN), using end-to-end CCS7 signaling protocols, can expect to meet the MCIm PDD objectives of an average of 2.0 seconds with 95% in ≤2.5 seconds. Calls from an MCIm LSO via the PSTN to LSOs outside the local service area are assumed to use CCS7 signaling protocols to the MCIm switch. The egress signaling protocols from the MCIT Switched Network to the many different local telephone company service providers however does not necessarily utilize CCS7 signaling. There are three basic egress signaling configuration. They are:

15.2.5.5.5.2.3.2.1 Network Inter-Connect, CCS7 between MCIm and the local

telephone company.

15.2.5.5.5.2.3.2.2 Inband Multifrequency (MF) signaling protocols without a BellSouth egress tandem in the connection.

15.2.5.5.5.2.3.2.3 Inband MF signaling protocols with a BellSouth egress tandem in the connection.

15.2.5.5.5.2.3.2.3.1 Calls from an MCIm LSO to other LSOs outside the local service area are assumed to have multiple STPs for 1+ traffic in the access and PSTN portion of the connection. The egress from the PSTN for 1+ traffic is again dependent upon the interface agreements in that service area and may consist of CCS7 or inband MF protocols.

15.2.5.5.5.2.3.2.3.2 Calls from an MCIm's LSO to another MCIm LSO with a mixture of CCS7 or all inband signaling protocols are expected to receive PDDs on the average of 2.9 seconds with 95% in ≤6.5 seconds.

15.2.5.5.5.2.4 **Impact of Number Portability (NP)**

If a call forwarding option is used as an interim solution for NP, the delay due to additional switching in the local access shall not exceed 0.4 seconds when MCIm is direct connected to the BellSouth end office, and 0.8 seconds when MCIm is connected to the BellSouth tandem, in addition to the PDDs described above.

15.2.5.5.5.2.5 **Custom Local Area Subscriber Services (CLASS)**

CLASS[SM] features such as Calling Name Delivery can contribute to the PDD of a call. This delay is caused by the additional time

(BellSouth option) before the ringing interval commences. This default delay is 3 seconds. Optional settings are available in 1 second intervals from 1 to 6 seconds. Calls to DTNs that have CLASS^{SM} features, particularly with calling name delivery, can expect to experience from 1 to 6 seconds (3 seconds default) of additional PDD compared to the PDDs shown for PDD1-C. MCI will specify optimal settings.

15.2.5.5.5.2.6 **Partial Dial Timing**

15.2.5.5.5.2.6.1 The interval between each information digit from a subscriber's line, until the LSO or switching system has determined that the digit string is incomplete.

15.2.5.5.5.2.6.2 For subscriber lines, partial dial timing shall be ≥16 seconds and ≤24 seconds. For trunks, inband signaling time-out shall be ≥5 seconds and ≤20 seconds.

15.2.5.6 **Local Switching**

BellSouth shall provide performance equal to or better than the requirements for Local Switching set forth in Bellcore LSSGR TR-TSY-000511. Post dial delay for connections to MCIm local operator services shall be no worse than Operator Services provided by BellSouth. Additionally, post dial delay from the Operator Services to destination numbers shall be no worse than that provided by BellSouth. Post dial delay for connections to MCIm local directory services shall be no worse than directory services provided by BellSouth. Additionally, post dial delay from the directory system to destination numbers shall be no worse than that provided by BellSouth.

15.2.5.7 **Operator Systems**

Operator System connections shall comply with the requirements for the Loop Combination, Local Switching, Operator Service, and Directory Assistance Service

requirements.

15.2.5.8 **Common Transport**

Specific requirements for this Network Element or Ancillary Function are in the Common Transport section. In all cases the performance of this Network Element shall meet the general requirements stated in "General Performance Requirements." Allocation of impairments shall be negotiated between MCIm and BellSouth consistent with sound engineering principles.

15.2.5.9 **Dedicated Transport**

Specific requirements for this Network Element are in the Dedicated Transport section. In all cases the performance of this Network Element shall meet the general requirements stated in "General Performance Requirements." (Allocation of impairments shall be negotiated between MCIm and BellSouth consistent with sound engineering principles.)

15.2.5.10 **Signaling Transfer Points**

Specific requirements for this Network Element are in the Signaling Transfer Points section. In all cases the performance of this Network Element shall meet the general requirements stated in "General Performance Requirements." (Allocation of impairments shall be negotiated between MCIm and BellSouth.)

15.2.5.11 **Signaling Link Transport**
Specific requirements for this Network Element are in the Signaling Link Transport section. In all cases the performance of this Network Element shall meet the general requirements stated in "General Performance Requirements." Allocation of impairments shall be negotiated between MCIm and BellSouth consistent with sound engineering principles.

15.2.5.12 **SCPs/Databases**

The performance requirements for databases (NP, LIDB, E911, etc.) vary depending or the database and the applications it supports. Database-specific performance requirements are included in the sections addressing individual Network Elements and in applicable Bellcore documents. In all cases, the query response time, availability, accuracy, updating capabilities, and other performance parameters shall at least be at parity with

those services as provided to BellSouth or other subscriber.

15.2.5.13 **Tandem Switching**

Specific requirements for this Network Element are in the Tandem Switching section. In all cases the performance of this Network Element shall meet the general requirements stated in "General Performance Requirements." Allocation of impairments shall be negotiated between MCIm and BellSouth consistent with sound engineering principles.

15.2.6 **Test and Verification**

15.2.6.1 BellSouth shall permit MCIm to confirm acceptable performance of any Network Element.

15.2.6.1.1 At MCIm's request, BellSouth will provide access to the Network Element sufficient for MCIm to test the performance of that Network Element to MCIm's satisfaction.

15.2.6.1.2 At MCIm's request, BellSouth will perform tests to confirm acceptable performance and provide MCIm with documentation of test procedures and results acceptable to MCIm.

15.3 **Protection, Restoration, and Disaster Recovery**

15.3.1 **Scope:**

This Section refers specifically to requirements on the use of redundant network equipment and facilities for protection, restoration, and disaster recovery.

15.3.2 **Requirements**

15.3.2.1 BellSouth shall provide protection, restoration, and disaster recovery capabilities at parity with those capabilities provided for their own services, facilities and equipment (e.g., equivalent circuit pack protection ratios, facility protection ratios).

15.3.2.2 BellSouth shall provide Network Elements and Ancillary Functions equal priority in protection, restoration, and disaster recovery as provided to their own services, facilities

and equipment.

15.3.2.3 BellSouth shall provide Network Elements and Ancillary Functions equal priority in the use of spare equipment and facilities as provided to their own services, facilities and equipment.

15.3.2.4 BellSouth shall restore Network Elements which are specific to MCIm end user subscribers on a priority basis as MCIm may designate.

15.4 **Synchronization**

15.4.1 **Definition**

Synchronization is the function which keeps all digital equipment in a communications network operating at the same average frequency. With respect to digital transmission, information is coded into discrete pulses. When these pulses are transmitted through a digital communications network, all synchronous Network Elements are traceable to a stable and accurate timing source. Network synchronization is accomplished by timing all synchronous Network Elements in the network to a stratum
1 source so that transmission from these network points have the same average line rate.

15.4.2 **Technical Requirements**

The following requirements are applicable to the case where BellSouth provides synchronization to equipment that MCIm owns and operates within a BellSouth location. In addition, these requirements apply to synchronous equipment that is owned by BellSouth and is used to provide a Network Element to MCIm.

15.4.2.1 The synchronization of clocks within digital networks is divided into two parts: intra-building and inter-building. Within a building, a single clock is designated as the Building Integrated Timing Supply (BITS), which provides all of the DS1 and DS0 synchronization references required by other clocks in such building. This is referred to as intra-building synchronization. The BITS receives synchronization references from remotely located BITS. Synchronization of BITS between buildings is referred to as inter-building synchronization.

15.4.2.2 To implement a network synchronization plan, clocks within digital networks are divided into four stratum levels. All clocks in strata 2, 3, and 4 are synchronized to a stratum 1 clock, that is, they are traceable to a stratum 1 clock. A traceable reference is a reference that can be traced back through some number of clocks to a stratum 1 source. Clocks in different strata are distinguished by their free running accuracy or by their stability during trouble conditions such as the loss of all synchronization references.

15.4.2.2.1 **Intra-Building**

15.4.2.2.1.1 Within a building, there may be different kinds of equipment that require synchronization at the DS1 and DS0 rates. Synchronization at the DS1 rate is accomplished by the frequency synchronizing presence of buffer stores at various DSI transmission interfaces. Synchronization at the DS0 rate is accomplished by using a composite clock signal that phase synchronizes the clocks. Equipment requiring DS0 synchronization frequently does not have adequate buffer storage to accommodate the phase variations among different equipment. Control of phase variations to an acceptable level is accomplished by externally timing all interconnecting DS0 circuits to a single clock source and by limiting the interconnection of DS0 equipment to less than 1,500 cable feet. Therefore, a BITS shall provide DS1 and composite clock signals when the appropriate composite signal is a 64-kHz 5/8th duty cycle, return to zero with a bipolar violation every eighth pulse (B8RZ).

15.4.2.2.2 **Inter-Building**

15.4.2.2.2.1 BellSouth shall provide inter-building synchronization at the DSI rate, and the BITS shall accept the primary and secondary synchronization links from BITS in other buildings. From hierarchical considerations, the BITS shall be the highest stratum clock within the building and BellSouth shall provide operations capabilities (this includes, but is not limited to: synchronization

reference provisioning; synchronization reference status inquiries; timing mode status inquiries; and alarm conditions).

15.4.3 **Synchronization Distribution Requirements**

15.4.3.1 Central office BITS shall contain redundant clocks meeting or exceeding the requirements for a stratum 2 clock as specified in ANSI T1.101-1994 and Bellcore *TR-NWT-001244 Clocks for the Synchronized Network: Common Genetic Criteria.*

15.4.3.2 Central office BITS shall be powered by primary and backup power sources.

15.4.3.3 If both reference inputs to the BITS are interrupted or in a degraded mode (meaning off frequency greater than twice the minimum accuracy of the BITS, loss of frame, excessive bit errors, or in Alarm Indication Signal), then the stratum clock in the BITS shall provide the necessary bridge in timing to allow the network to operate without a frame repetition or deletion (slip free) with better performance than 1 frame repetition or deletion (slip) per week.

15.4.3.4 DS1s multiplexed into a SONET synchronous payload envelope within an STS-n (where n is defined in ANSI T1.105-1995) signal shall not be used as reference facilities for network synchronization.

15.4.3.5 The total number of Network Elements cascaded from the stratum 1 source shall be minimized.

15.4.3.6 A Network Element shall receive the synchronization reference signal only from another Network Element that contains a clock of equivalent or superior quality (stratum level).

15.4.3.7 BellSouth shall select for synchronization those facilities shown to have the greatest degree of availability (absence of outages).

15.4.3.8 Where possible, all primary and secondary synchronization facilities shall be physically diverse (this means the maximum feasible physical separation of synchronization equipment and cabling).

15.4.3.9 No timing loops shall be formed in any combination of primary and secondary facilities.

15.4.3.10 An Operations Support System (OSS) shall continuously monitor the BITS for synchronization related failures or degradation.

15.4.3.11 An OSS shall continuously monitor all equipment transporting synchronization facilities for synchronization related failures or degradation.

15.4.3.12 For non-SONET equipment, BellSouth shall provide synchronization facilities which, at a minimum, comply with the standards set forth in ANSI T1.101-1994.

15.4.3.13 For SONET equipment, BellSouth shall provide synchronization facilities that have time deviation (TDEV) for integration times greater than 0.05 seconds and less than or equal to 10 seconds, that is less than or equal to 10 nanoseconds. TDEV, in nanoseconds, for integration times greater than 10 seconds and less than 1000 seconds, shall be less than 3.1623 times the square-root of the integration time. For example, for integration times of 25 seconds, TDEV shall be less than 15.8 nanoseconds.

15.5 **SS7 Network Interconnection**

15.5.1 **Definition**

Figure 8 depicts Signaling System 7 (SS7) Network Inter-connection. SS7 Network Interconnection is the interconnection of MCIm local Signaling Transfer Point (STPs) with BellSouth STPs. This interconnection provides connectivity that enables the exchange of SS7 messages among BellSouth switching systems and databases (DBs), MCIm local or tandem switching systems, and other third-party switching systems directly connected to the BellSouth SS7 network.

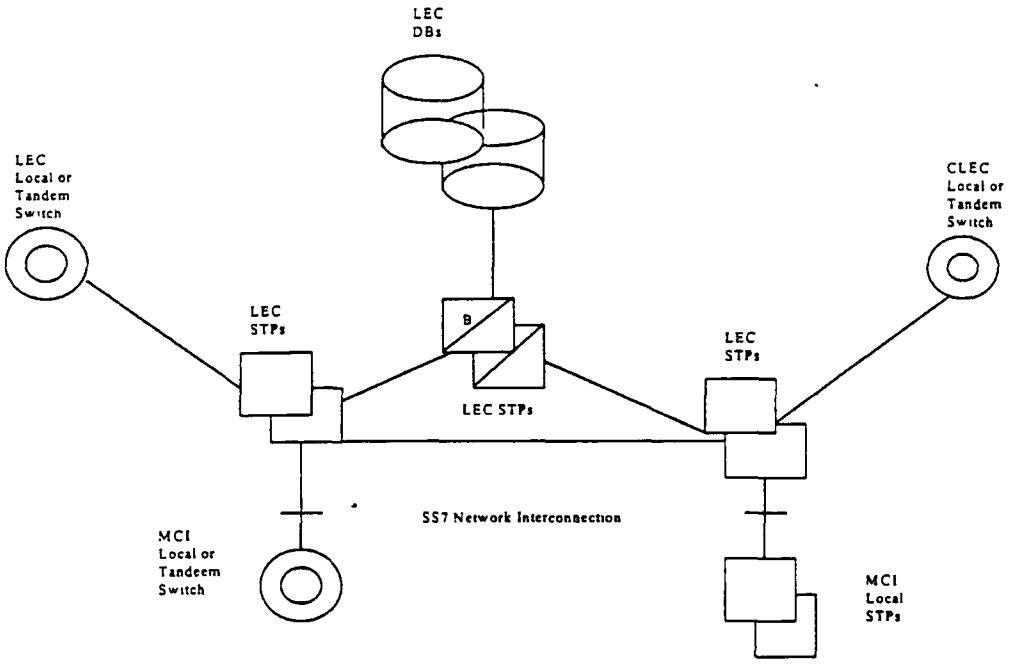


Figure 8. SS7 Network Interconnection

15.5.2 **Technical Requirements**

15.5.2.1 SS7 Network Interconnection shall provide connectivity to all components of the BellSouth SS7 network. These include:

15.5.2.1.1 BellSouth local or tandem switching systems;

15.5.2.1.2 BellSouth DBs; and

15.5.2.1.3 Other third-party local or tandem switching systems.

15.5.2.2 The connectivity provided by SS7 Network Interconnection shall fully support the functions of BellSouth switching systems and DBs and MCIm or other third-party switching systems with A-link access to the BellSouth SS7 network.

15.5.2.3 In particular, Figure 9 depicts a circumstance where SS7 Network Interconnection shall provide transport for certain types of Transaction Capabilities Application Part (TCAP) messages. If traffic is routed based on dialed or translated digits between an MCIm local switching system and a BellSouth

or other third-party local switching system, either directly or via a BellSouth tandem switching system, then it is a requirement that the BellSouth SS7 network convey via SS7 Network Interconnection the TCAP messages that are necessary to provide Call Management services (Automatic Callback, Automatic Recall, and Screening List Editing) between the MCIm local STPs and the BellSouth or other third-party local switch.

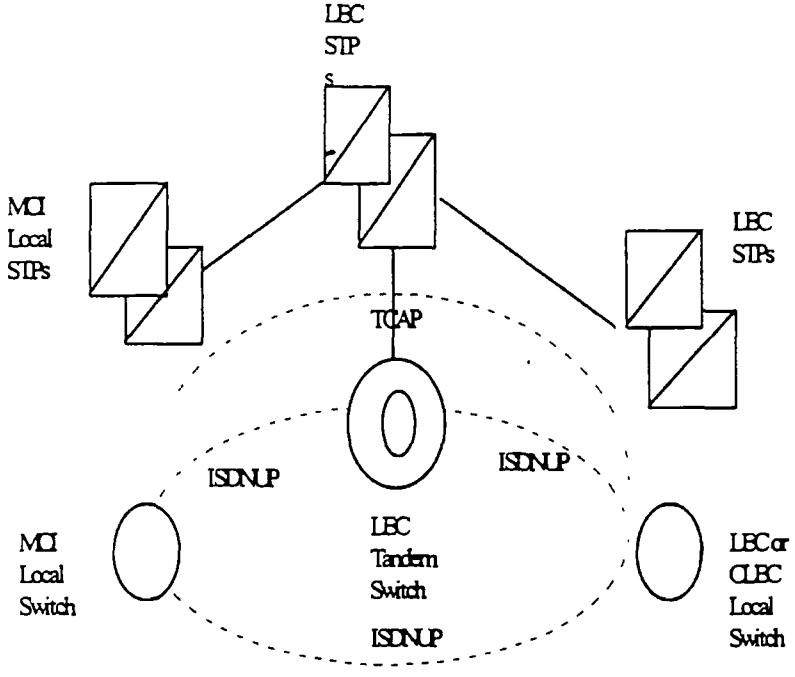


FIGURE 9. Interswitch TCAP Signaling for SS7 Network Interconnection

15.5.2.4 When the capability to route messages based on Intermediate Signaling Network Identifier (ISNI) is generally available on BellSouth STPs, the BellSouth SS7 Network shall also convey TCAP messages using SS7 Network Interconnection in similar circumstances where the BellSouth switch routes traffic based on a Carrier Identification Code (CIC).

15.5.2.5 SS7 Network Interconnection shall provide all functions of the MTP as specified in ANSI T1. 111 (Reference 12.5.2). This includes:

15.5.2.5.1 Signaling Data Link functions, as specified in

ANSI T1.111.2;

15.5.2.5.2 Signaling Link functions, as specified in ANSI T1.111.3; and

15.5.2.5.3 Signaling Network Management functions, as specified in ANSI T1.111.4.

15.5.2.6 SS7 Network Interconnection shall provide all functions of the SCCP necessary for Class 0 (basic connectionless) service, as specified in ANSI T1.112 (Reference 12.5.4). In particular, this includes Global Title Translation (GTT) and SCCP Management procedures, as specified in T1.112.4.

15.5.2.7 Where the destination signaling point is a BellSouth switching system or DB, or is another third-party local or tandem switching system directly connected to the BellSouth SS7 network, SS7 Network Interconnection shall include final GTT of messages to the destination and SCCP Subsystem Management of the destination.

15.5.2.8 Where the destination signaling point is an MCIm local or tandem switching system, SS7 Network Interconnection shall include intermediate GTT of messages to a gateway pair of MCIm local STPs, and shall not include SCCP Subsystem Management of the destination.

15.5.2.9 SS7 Network Interconnection shall provide all functions of the Integrated Services Digital Network User Part (ISDNUP), as specified in ANSI T1.113.

15.5.2.10 SS7 Network Interconnection shall provide all functions of the TCAP, as specified in ANSI T1.114.

15.5.2.11 If and when Internetwork MTP Routing Verification Test (MRVT) and SCCP Routing Verification Test (SRVT) become approved ANSI standards and available capabilities of BellSouth STPs, SS7 Network Interconnection shall provide these functions of the OMAP.

15.5.2.12 SS7 Network Interconnection shall be equal to or better than the following performance requirements:

15.5.2.12.1 MTP Performance, as specified in ANSI

T1.111.6;

15.5.2.12.2 SCCP Performance, as specified in ANSI T1.112.5; and

15.5.2.12.3 ISDNUP Performance, as specified in ANSI T1.113.5.

15.5.3 **Interface Requirements**

15.5.3.1 BellSouth shall offer the following SS7 Network Interconnection options to connect MCIm or MCIm-designated STPs to the BellSouth SS7 network:

15.5.3.1.1 D-link interface from MCIm STPs.

15.5.3.2 Each interface shall be provided by one or more sets (layers) of signaling links, as depicted in Figure 10:

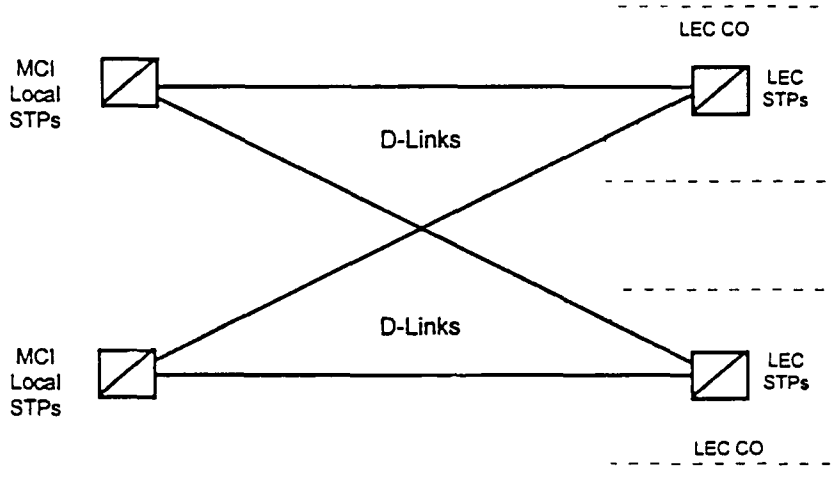


FIGURE 10. D-LINK Interface

15.5.3.3 The Signaling Point of Interconnection (SPOI) for each link shall be located at a cross-connect element, including but not limited to a DSX-1, in the Central Office (CO) where the BellSouth STPs is located. There shall be a DS1 or higher rate transport interface at each of the SPOIs. Each signaling link shall appear as a DS0 channel within the DS1 or higher rate interface. BellSouth shall offer higher rate DS1 signaling links for interconnecting MCIm local switching systems or STPs with BellSouth STPs as soon as these become approved ANSI

standards and available capabilities of BellSouth STPs.

15.5.3.3.1 In each LATA, there will be two signaling points of interconnection (SPOIs). The requirement for two SPOIs is driven by the critical importance attached by all parties to signaling link diversity.

15.5.3.3.2 Each party will designate one of the two SPOIs in the LATA. A SPOI can be any existing cross connect point in the LATA. Since each party will designate a SPOI, we believe that both parties will be incented to select reasonable and efficient SPOI locations.

15.5.3.3.3 Each signaling link requires a port on each party's STP, which each party shall provide without explicit charge.

15.5.3.4 The BellSouth CO shall provide intraoffice diversity between the SPOIs and the BellSouth STPs, so that no single failure of intraoffice facilities or equipment shall cause the failure of both D-links in a layer connecting to a BellSouth STPs.

15.5.3.5 The protocol interface requirements for SS7 Network Interconnection include the MTP, ISDNUP, SCCP and TCAP. These protocol interfaces shall conform to the following specifications:

15.5.3.5.1 Bellcore GR-905-CORE, Common Channel Signaling Network Interface Specification (CCSNIS) Supporting Network Interconnection, Message Transfer Part (MTP), and Integrated Services Digital network User Part (ISDNUP);

15.5.3.5.2 Bellcore GR-1428-CORE, CCS Network Interface Specification (CCSNIS) Supporting Toll Free Service;

15.5.3.5.3 Bellcore GR-1429-CORE, CCS Network Interface Specification (CCSNIS) Supporting Call Management Services; and

15.5.3.5.4 Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction

Capabilities Application Part (TCAP).

15.5.3.6 BellSouth shall set message screening parameters to block accept messages from MCIm local or tandem switching systems destined to any signaling point in the BellSouth SS7 network with which the MCIm switching system has a legitimate signaling relation.

15.5.4 SS7 Network Interconnection shall be equal to or better than all of the requirements for SS7 Network Interconnection set forth in the following technical references:

15.5.4.1 ANSI T1.110-1992 American National Standard Telecommunications Signaling System Number 7 (SS7) - General Information;

15.5.4.2 ANSI T1.111-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Message Transfer Part (MTP);

15.5.4.3 ANSI T1.111A-1994 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Message Transfer Part (MTP) Supplement;

15.5.4.4 ANSI T1.112-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Signaling Connection Control Part (SCCP);

15.5.4.5 ANSI T1.113-1995 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Integrated Services Digital Network (ISDN) User Part;

15.5.4.6 ANSI T1.114-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Transaction Capabilities Application Part (TCAP);

15.5.4.7 ANSI T1.115-1990 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Monitoring and Measurements for Networks;

15.5.4.8 ANSI T1.116-1990 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Operations, Maintenance and Administration Part (OMAP);

15.5.4.9 ANSI T1.118-1992 American National Standard for

Telecommunications - Signaling System Number 7 (SS7) - Intermediate Signaling Network Identification (ISNI);

15.5.4.10 Bellcore GR-905-CORE, Common Channel Signaling Network Interface Specification (CCSNIS) Supporting Network Interconnection, Message Transfer Part (MTP), and Integrated Services Digital Network User Part (ISDNUP);

15.5.4.11 Bellcore GR-954-CORE, CCS Network Interface Specification (CCSNIS) Supporting Line Information Database (LIDB) Service;

15.5.4.12 Bellcore GR-1428-CORE, CCS Network Interface Specification (CCSNIS) Supporting Toll Free Service;

15.5.4.13 Bellcore GR-1429-CORE, CCS Network Interface Specification (CCSNIS) Supporting Call Management Services; and,

15.5.4.14 Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP).

15.6 **Network Interconnection**

15.6.1 **Technical Requirements**

15.6.1.1 When requested by MCIm, BellSouth shall provide interconnections between the BellSouth Network Elements provided to MCIm and MCIm's network at transmission rates designated by MCIm.

15.6.1.2 Traffic shall be combined and routed as follows:

15.6.1.2.1 BellSouth shall provide direct trunks for intraLATA traffic (except 911, directory assistance, operator services, and other services that may require special routing) and, at MCIm's request, BellSouth shall allow MCIm to route such traffic either directly to a BellSouth tandem or directly to a BellSouth end-office. At MCIm's option, intraLATA toll and local traffic shall be combined onto one trunk group.

15.6.1.2.2 At MCIm's request, BellSouth shall receive